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DEPARTMENT OF COMMERCE
BUREAU OF FISHERIES
HENRY O'MALLEY, Commissioner

FISHERY INDUSTRIES OF THE UNITED STATES

REPORT OF THE DIVISION OF FISHERY INDUSTRIES FOR 1922

By HARDEN F. TAYLOR
Assistant in Charge
(With the collaboration of the division staff)

APPENDIX V TO THE REPORT OF THE U. S. COMMISSIONER OF FISHERIES FOR 1923

Bureau of Fisheries Document No. 954

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By HARDEN F. TAYLOR, *Assistant in Charge.*[2]

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[1] Appendix V to the Report of the U. S. Commissioner of Fisheries for 1923. B. F. Doc. 954.
[2] Lewis Radcliffe was in charge of the Division of Fishery Industries until November 15, 1922.

INTRODUCTION.

The depression that existed in the fishery industries in 1920 and 1921 was, in some respects, relieved in 1922. The vessel landings in New England showed a slight increase in quantity, but because of lower prices the aggregate value was slightly less than that of 1921. At Seattle both quantity and value were about the same as for 1921, although the distribution of catch among the species was considerably different. The products of the fisheries of California amounted to 168,969,733 pounds, an increase of 32.3 per cent over the 127,728,623 pounds in 1921. The amount of fish frozen was 75,453,674 pounds, a decrease of 4.9 per cent from the amount frozen in 1921. The cold-storage holdings, especially in the latter part of the year, were smaller than they had been for several years. The indications are that this decrease in freezing and cold storage is due to a better market demand rather than to poorer supply.

There were some gratifying increases in the canning of fishery products. There was a decrease in canned shrimp; all other canned fishery products for which statistics are available increased. The canned salmon increase was due entirely to Alaska; there was a sharp decrease in the pack in the Pacific Coast States. The total pack of canned salmon was 5,234,898 cases, valued at $38,420,717, an increase of 45.4 per cent in quantity and 53.1 per cent in value over 1921. The pack of all canned fishery products amounted to 10,094,549 cases, valued at $60,464,947, an increase of 35.2 per cent in quantity and 29.6 per cent in value. The exports of canned fish in 1922 were 88,416,266 pounds, valued at $10,271,740, which is equivalent to 18 per cent in quantity and 17 per cent in value of the total pack.

The market surveys of Boston and Seattle brought forth some interesting and significant facts. Particularly significant is the fact that over half of the total amount of fish landed at Boston is consumed in Massachusetts, and over 80 per cent is consumed in Massachusetts and neighboring States. This indicates that little advantage is taken of the potential markets inland by the New England fisheries. From Seattle, however, the bulk of the shipments are to the interior and eastern markets.

SUMMARY OF OPERATIONS.

During the year, statistical canvasses were made of the fisheries of New York, New Jersey, Pennsylvania, and Delaware for 1921, and the take of shad and alewives in the Potomac and Hudson Rivers in 1922, and of the canned fisheries products and by-products of the United States for 1922. The last was confined to the number of plants operated, the raw products utilized, and the quantity and value of the finished products. The landings of the vessel fisheries at the ports of Boston and Gloucester, Mass., Portland, Me., and Seattle, Wash., have been collected as heretofore, and published as monthly and annual bulletins. In addition, there have been published monthly bulletins showing the amount of the several species of fish frozen and held in cold storage in the several sections of the country. The results of the canvasses mentioned, and summary analyses of the freezing and cold-storage data are embodied in the present report, together with quantity of fishery products taken in

California in 1922, the fishery products received at the Municipal Fish Wharf and Market, Washington, D. C.

Market surveys were made of the two primary producing markets of Seattle and Boston, and the results published as documents of this bureau.

In fisheries technology, notable progress has been made in net preservation, brine freezing of fish, and in the methods of canning sardines.

PUBLICATIONS OF THE DIVISION.

During the calendar year 1922 the following publications, prepared in this division, were issued. This list does not include the monthly statistical bulletins for Boston and Gloucester, Mass.; Portland, Me.; and Seattle, Wash.

DOCUMENTS.

Principles involved in the preservation of fish by salt; by Harden F. Taylor, 8°, 22 pp., Document No. 919.

Deductions concerning the air bladder and the specific gravity of fishes; by Harden F. Taylor, royal 8°, 6 pp., Document No. 921.

Trade in fresh and frozen fishery products and related marketing considerations in Seattle, Wash.; by L. T. Hopkinson, 8°, 16 pp., Document No. 930.

Fisheries and market for fishery products in Mexico, Central America, South America, West Indies, and Bermudas; by Lewis Radcliffe, 8°, 105 pp., 1 text fig., Document No. 931.

Fishery industries of the United States. Report of the division of statistics and methods of the fisheries for 1921; by Lewis Radcliffe, 8°, 136 pp., 8 figs., Document No. 932.

ECONOMIC CIRCULARS.

Trade in fresh and frozen fishery products and related marketing considerations in Minneapolis and St. Paul, Minn.; by L. T. Hopkinson, 8°, 21 pp., Economic Circular No. 55.

STATISTICAL BULLETINS.

Statement, by fishing grounds and by months, of quantities and values of certain fishery products landed at Seattle, Wash., by American fishing vessels during the calendar year 1921. Statistical Bulletin No. 516.

Statement, by months, of the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels, during the calendar year 1921. Statistical Bulletin No. 517.

Statement, by fishing grounds, of the quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American and Canadian fishing vessels, during the calendar year 1921. Statistical Bulletin No. 518.

Fisheries of Maryland and Virginia, 1920. Statistical Bulletin No. 520.

Canned fishery products and by-products of United States and Alaska, 1921. Statistical Bulletin No. 526.

IMPROVEMENTS IN MERCHANDISING FISHERY PRODUCTS.

There has been evident, particularly for the past year or two, an increasing perception by the fish industry of the necessity for better methods of merchandising fish. This field of activity includes not only technical methods of preparing, shipping, and handling fish, but also favorable publicity that will increase the demand for and consumption of fish.

FILLETING FISH.

Perhaps the most conspicuous expression of this growing demand for better technical methods is to be found in the recent development of filleting fish at the point of production. The practice began in New England, by way of an effort to stimulate a better demand for haddock, and has since been taken up at New York and other points.

The haddock are split, the backbone is removed, and the fillets are brined about 20 minutes in strong brine. Some cracked ice is added to the brine, if necessary, to keep it cool. After having been brined, the fillets are each wrapped in a vegetable parchment paper and are laid in pans or other vessel to be stored over night in a cold room. The temperature of the room is above 32° F., so as not to freeze the fillets. Pans of fillets, without lids, are stacked one above the other so as to press the fillets firmly, but not excessively.

Next morning the fillets are packed in tinned lard cans, each can containing about 30 pounds of the fillets. The lid is put on and the can is put into a wooden packing case, surrounded by cracked ice. These cans are shipped to retailers, delicatessens, butchers, and others, who dispose of one or more cans in each week's trade.

A variation in this practice is, instead of wrapping each fillet individually, to pack the fillets in the can in layers, following each layer with a cut circle of parchment paper.

Among the advantages of filleting fish are: (1) The entire piece purchased by the housewife is edible, and the price charged for it is fully competitive without making any allowance for waste; (2) there is no scaling, gutting, and cleaning to be done—a very disagreeable task to most women; (3) the shipping weight of the fish is reduced; (4) the waste, which is usually around 50 per cent of the round fish, remains in the hands of the producer, where it may be possible to use it economically; (5) fillets receive a more careful and cleanly handling all along the line, from producer to consumer, for the reason that they are wrapped, are more delicate, and will not endure the rough handling that round fish are subjected to.

It might be supposed that the retail customer would object to this method of distributing the fish, on the ground that he has little or no means of determining the identity of the fish, or judging its quality, since the distinguishing marks of both identity and quality are gone. Yet such an objection, if it exists, has not prevented a very rapid growth in the past year of this method of distributing fresh fish.

MARKET SURVEYS.

During 1922 the bureau continued its surveys of the fish industry of important or representative cities. In 1921, the surveys were of consuming markets; in 1922, two primary producing markets, Seattle and Boston, were studied, Seattle for 1921, and Boston for the month of September, 1922.

Seattle, with a population of 315,312, is the principal landing port for the northern Pacific fisheries. More than 83 per cent of the fish business is in salmon and halibut. The remaining business is in sablefish, rockfish, smelts, crabs, oysters, and shrimp, with 26 others in moderate or limited demand. There are 19 wholesalers and 48 retailers in Seattle, a ratio of 1 retailer to each 6,569 people. The pro-

duction of fish (that is, fish landed) at Seattle amounted to 45,246,000 pounds. Of fresh and frozen fish, 29,778,000 pounds were shipped to points in the United States and foreign countries. Part of this was in less-than-carload shipments, but 635 full carloads went forward from Seattle in 1921, 78.5 per cent of which went to seven cities—Chicago, New York, Kansas City, Boston, Omaha, St. Louis, and Buffalo. Fish were frozen in Seattle in 1921 to the extent of 12,025,501 pounds. Thirteen carloads of oysters were received into Seattle from eastern points.

Boston, with a population of 748,060, is the principal landing port for the fisheries of the North Atlantic. It is also the greatest fishing port in the United States and is one of the world's fishing ports. More than 80 per cent of its fishing business, on the basis of quantity, is in cod, haddock, halibut, mackerel, swordfish, and lobsters, a very different group of fish from those prominent in Seattle. A moderate or limited business is also done in alewives, butterfish, carp, flounders, salmon, smelts, suckers, clams, crabs, oysters, and some 54 other species. In Boston there were 108 wholesale fish dealers and 171 retailers, there being 1 retailer for each 6,926 people. The production or landings of fish in the year ended September 30, 1922, was 101,949,725 pounds, valued at $4,051,350. In the month of September, 1922, the following products were landed at Boston: Fish, 13,244,074 pounds; lobsters, 616,355 pounds; clams, 338,964 pounds; oysters, 10,068 gallons or 80,554 pounds; scallops 478 gallons or 3,824 pounds. The amount of fish frozen during 1922 was 8,946,183 pounds, and the amount distributed from Boston during September, 1922, was 11,056,709 pounds. In the month of September, 56 per cent of all Boston's fish was consumed in Massachusetts; and in Massachusetts, Rhode Island, Connecticut, New York, and Pennsylvania, 89 per cent of Boston's fish was consumed. Boston is thus unlike Seattle in this respect, where the great bulk of shipments goes to distant cities.

TECHNOLOGICAL INVESTIGATIONS.

As has been pointed out in previous reports of this division the need for technological investigations is urgent. This fact is evident both from the consumer's and the producer's standpoints. The former may wonder why, when the fisherman spends no money to raise his crop of fish, the price approaches that of meats produced at much expense; the producer, on the other hand, readily recognizes that the serious limits set upon his business by the perishable character of his goods and by the large overhead expense prevent an economic and profitable operation and an increase in the demand.

Fish are about 50 per cent edible, the remaining 50 per cent being heads, fins, viscera, etc. In the case of cattle and swine such waste is kept and utilized at a considerable profit. There is little doubt that similar use can be more extensively made of waste from fish, if processes are made available by technological research. It is also evident to the producer of fish, if not to the consumer, that the great total losses in transportation increase the price of fish without increasing its value; much of the loss resides in inferior quality after transportation, which stifles demand. The obvious remedy for this condition is to devise methods of transportation of fish that will prevent both

the total losses and the losses of quality in transit, so that the consumer may be offered a more attractive article at a competitive price, and that will stabilize the business generally. A reduction in the fisherman's overhead expense for nets will make the business more profitable and stable at its foundation and help to compensate for the arduous character of the fisherman's calling. We are concerned here, not so much with the immediate profits of the fish business, how large they are, and who gets them—important as these questions are—but with the more significant fact that one of our large natural resources stands poorly developed, because of waste, excessive overhead expenses, and difficulty in reaching the great inland markets with a first-class product. The waste can not be avoided, the overhead expenses can not be reduced, and the distant markets can not be reached except through scientific technological investigations. These have been conducted as far as possible during the year with such funds and personnel as were available, as will now be discussed more particularly.

BRINE FREEZING.

In the report of this division for 1921 mention was made of the status of brine freezing at that time; it was pointed out that in principle brine freezing seemed to have received sufficient test and approval by various scientific investigators and that the chief problem ahead was the engineering one of constructing a plant that would freeze fish on a large commercial scale, with a minimum of labor and expense and in a sufficiently simple way to be practicable in the ordinary fish freezer. The requirements of such a plant are: (1) It should apply brine at the lowest possible temperature to the entire surface of the fish; (2) the brine should move at the highest practicable speed past the surfaces of the fish; (3) the fish should be held straight and trim during the freezing; (4) operation should preferably be continuous and automatic; (5) the other necessary operations of washing and glazing should be performed, if possible, without additional handling. The prospects of meeting these requirements seem good in an experimental plant that has been constructed in the Fishery Products Laboratory in Washington. Fish are suspended on a horizontal bar and while so suspended are conveyed by mechanical means successsively through a shower of water for washing, through a violent shower or rainstorm of brine at a very low temperature for freezing, and again through a shower of water that washes off the brine and applies a glaze. The fish emerge from the apparatus frozen and glazed, ready for storage or shipment. During 1922 the plant was constructed and to some extent tested. Its operating characteristics appear promising, but it will need to be given more thorough trial before definite conclusions can be reached.

PRESERVATION OF NETS.

Mention was made in the report of this division for 1921 of the work undertaken on the preservation of fish nets. Extensive experiments brought out interesting and useful data concerning many preservatives in common use, and also concerning materials not hitherto used

as net preservatives. These data are published in a separate document.[3]

Perhaps the most significant result of the work was the discovery of the valuable properties of copper oleate as a net preservative. This substance, from its fundamental properties, seemed to offer good prospects as a net preservative and was accordingly included in various combinations among the substances tested. It was dissolved in gasoline or benzol and the twine was dipped in the solution. By testing before and after various periods of exposure it was found to preserve lines well, to reduce if not entirely prevent fouling by barnacles and the like, and in addition to these two fundamental essential properties, to affect stiffness and increase weight of twine very little. It does not diminish mechanical wearing quality of twine, as many other preservatives do, does not shrink the line appreciably, and is not very expensive or difficult to apply. Announcement of the results was made at the annual meetings of the American Fisheries Society at Madison, Wis., September 6, 1922, and the United States Fisheries Association at Atlantic City, N. J., September 22, 1922, followed by short publications of summaries of results in the fishery trade journals. The interest of the fishing industry in this work was immediate and widespread. The next step in the investigation was a practical trial of the material by several fishermen in different localities, to whom the bureau supplied a sufficient amount of copper oleate for the tests, with directions for use. About 700 pounds of copper oleate were made for this purpose in the Fishery Products Laboratory.

Meanwhile, several companies entered into the manufacture of copper oleate for a fish-net preservative, and much of it has been sold and is in use by fishermen. The 1923 season will probably be conclusive of its actual value. Further experiments are in progress on a still larger scale, including several other proposed preservatives and also combinations of copper oleate designed to make it more suitable for use in fresh water, since earlier experiments were less satisfactory in fresh water than in salt water.

CANNING SARDINES.

By far the greater part of sardines canned in California are packed in sauce, principally tomato. The usual procedure is to clean the fish, brine, dry, fry in oil, cool and pack the fish, exhaust, seal, and retort the cans.

In this process, the most objectionable feature is the frying in oil. This part of the process was studied at the San Pedro (Calif.) laboratory in 1921, and the results of that investigation were discussed in the division's report for that year. The results have since been published by the California Fish and Game Commission.[4] The principal conclusion arrived at in that work was that the fry bath is responsible for the existence in canned sardines of a rancid, indigestible oil, which greatly detracts from the quality of the goods. Since the primary purpose of the fry bath is to cook out the excess water from the fish before canning, the problem resolved itself into one of removing the

[3] Taylor, Harden F., and Arthur W. Wells: Properties and Values of Certain Fish-net Preservatives. Appendix I, Report of the U. S. Commissioner of Fisheries for 1923, Document 947, 69 pp., 35 figs. Washington, 1923.

[4] Beard, Harry R.: Changes in Oil used for Frying Sardine, State of California, Fish and Game Commission Circular No. 1, March, 1922, 8 pp.

water by some other means. Three methods of doing this were tried at the San Pedro laboratory, namely, steaming, cooking in brine, and packing raw after brining and drying.

Steaming has been tried before—in fact, the method was at one time practiced on a considerable scale in California, but the practice was discontinued. Later, the method was practiced at Santa Cruz and Monterey, and the product found favor with the public. Steaming causes the skin to break, both during the processing and after the cooling. This effect was diminished by brining and drying, and oiling the trays helped to prevent the fish from sticking to the trays. A product was thus prepared that was apparently the equal, if not the superior, of the usual fried-in-oil product.

Good results were obtained also by precooking the fish in strong brine instead of oil. The usual operation of brining the fish is omitted. Preliminary drying was necessary, however, to prevent the skins from breaking during the cooking, and precautions were also necessary to prevent the fish from sticking to each other and to the trays.

The third method of removing the water consisted of brining in saturated brine, drying, canning, and processing. The brining is carried as far as possible without excessively salting the fish. A thick tomato sauce is used to take up the excess moisture released in the processing. Certain common losses are prevented by this method, but there is a disadvantage in the necessity of carrying out the process within a few hours after the fish are landed.

The investigator who did this work also visited the Maine sardine industry during the summer in order to acquaint himself with the problems in that field and to throw any possible light on the methods employed in California.

SALTING OF PACIFIC COAST MACKEREL.

Attention was also given by the San Pedro laboratory to the salting of the Pacific coast mackerel (*Scomber japonicus*). The fish is, in general, less fat than the Atlantic mackerel, and its flesh is more likely to be dark in color. It was found, however, that the method that had previously been found in the bureau's salting experiments to be applicable in warm climates was here successful. This process consists in using high purity salt, applied dry to perfectly fresh fish that have been thoroughly cleaned of all blood and viscera. These points all seem to be essential. Packers who have themselves hit upon most of these points have found by experience that salt of inferior quality produces inferior fish and that any blood left in the fish darkens the fish. Freshness is also important, so much so that salting aboard the boats seems advisable.

PEARL ESSENCE.

Pearl essence, an incidental product of the fisheries, has continued to attract considerable attention, perhaps more because of its spectacular beauty and novel application than because of its real importance. Nevertheless, the business of manufacturing imitation pearls, which was at one time an exclusively European and Japanese industry, has migrated to America to a very large extent. New York city and environs are now the center of a considerable imitation-pearl

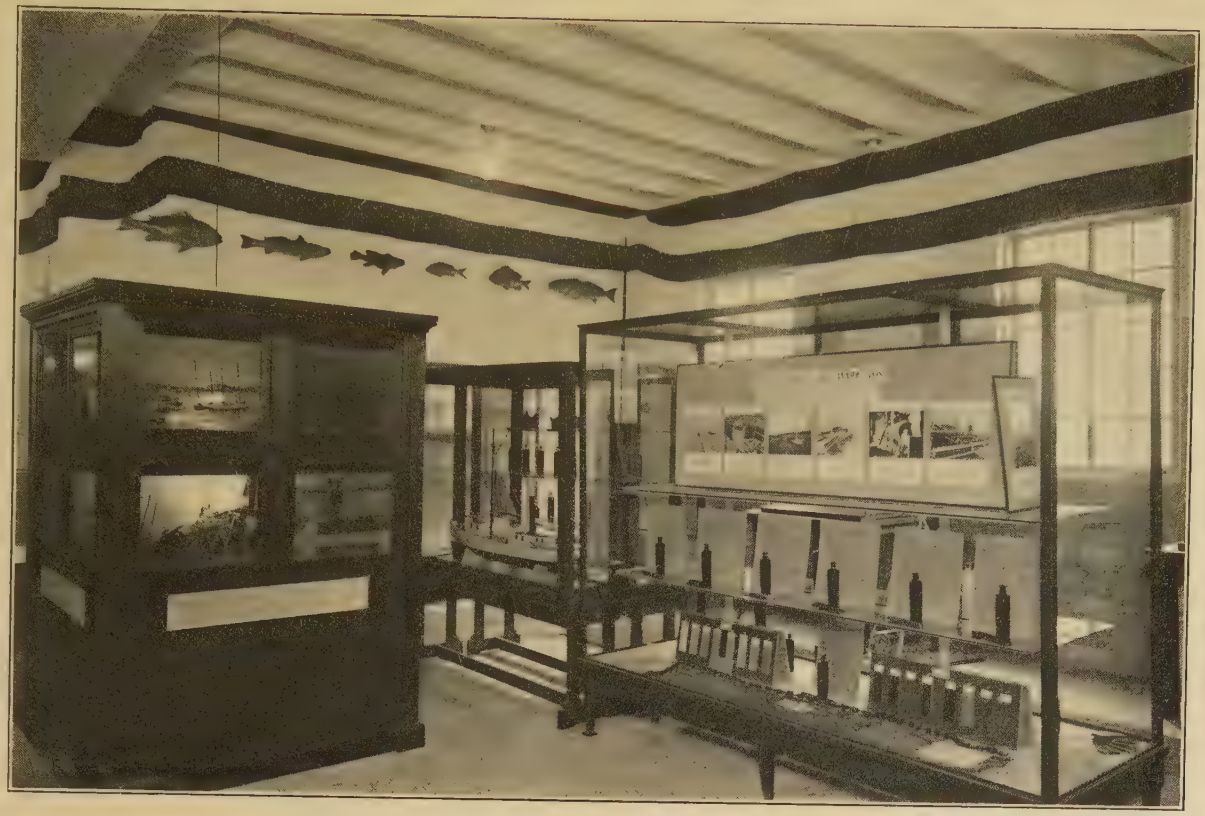


FIG. 1.—View of the fisheries exhibit at the Brazilian Centennial Exposition.

FIG. 2.—View of the Interior exhibit of the Brazilian [illegible] Exposition.

industry, based largely on the supply of pearl essence produced in the United States, principally from herring and alewife scales.

A process of making a pearl essence has been elaborated in the Fishery Products Laboratory, which in technique is a radical departure from any methods known to have been used hitherto. By this method, the lustrous material from the scales is removed in water, together with any dirt, blood, slime, etc., that may accompany the scales. The crude suspension is then treated chemically in such a way that the lustrous or nacreous particles are removed bodily from the crude liquor, leaving all else behind, and are transferred to ether and then to ethyl or amyl acetate. These latter substances are solvents of nitrocellulose, which, when dissolved in the suspension, makes a pearl lacquer. This, applied to glass beads, makes the "indestructible" pearl of commerce. "Essence" has been prepared by this process from the alewife, herring, gizzard shad (*Dorosoma cepedianum*), shad, silver carp or quillback (*Carpiodes velifer*), and no doubt could be prepared successfully in large quantities from the California pilchard or sardine and from many other fishes. The details of the process will be published in a separate document.

FISHERIES EXHIBIT AT THE BRAZILIAN INTERNATIONAL CENTENNIAL EXPOSITION.

The act of Congress authorizing the United States to participate officially in the Brazilian International Centennial Exposition at Rio de Janeiro, contained the following clause:

> Sec. 6. That the Secretary of Commerce is hereby authorized to collect and prepare a suitable exhibit of the fisheries industry of the United States for exhibit at the said exposition and accompany the same with a report respecting such industry, to be printed in the English, Spanish, and Portuguese languages, the expense of the same to be paid out of the appropriation hereinafter provided for.

Under authority from the Secretary of Commerce, the Bureau of Fisheries prepared and managed that part of the exhibit that related to the fisheries of the United States. (See figs. 1 and 2.)

The organization and functions of the Bureau of Fisheries were shown by a chart and an automatic projection machine, which showed successively 70 slides. The salmon industry was exhibited by means of an illustrated chart, showing life history of the salmon, the methods of propagation, the fishery, and methods of canning and salting the salmon. The chart was supplemented by an exhibit of salmon eggs in various stages of development, a model salmon-pile trap, a display of canned salmon, a projection machine showing 20 slides, and 2 motion-picture films.

The New England bank fisheries were represented also by illustrated charts, dealing with fish-cultural and industrial aspects of the fishery, two vessel models, and 120 implements, and a variety of exhibits of canned, smoked, and salted fishery products, nets, lines, twine, models of fish, and several large transparencies showing New England fishing operations, hatchery work, etc. An exhibit was made also of the bureau's work on the preservation of nets.

The sardine industry was represented by two large illustrated charts, supplemented by a model of a sardine weir and a display of canned sardines. Seventy-five pictures of the oyster industry were shown successively by an automatic projection machine. The chief

implements and products of this industry were on exhibition. The menhaden industry was shown by an illustrated chart and a comprehensive assembly of oils, fertilizers, fish meal, and other by-products of the fisheries.

An exhibit of canned fishery products was comprehensive and of a variety that might surprise anyone who was not familiar with the field. Other exhibits included oceanographic apparatus, the mother-of-pearl industry, retail marketing methods, fishery colleges, and an assembly of publications of the Bureau of Fisheries, including one specially prepared for the purpose and printed in English, Spanish, and Portuguese, being a general description of American fisheries.

AGREEMENT BETWEEN BUREAU OF THE CENSUS AND BUREAU OF FISHERIES RELATIVE TO COLLECTION OF STATISTICS ON FISH AND MARINE ANIMAL OILS.

According to an agreement reached on May 18, 1922, between the Bureau of the Census and the Bureau of Fisheries, the statistics of production and consumption of fish and marine animal oils in the United States are now taken by the Bureau of Fisheries. Cards are sent out quarterly to all producers, who are asked to fill out and return to this bureau the data required. The data are tabulated and supplied to the Bureau of the Census. The agreement is as follows:

The Bureau of the Census is required to collect quarterly reports on the production, consumption, and stocks of animal and vegetable fats and oils. The Bureau of Fisheries has been collecting annual statistics concerning the commercial catch of fish, the pack of fish, and the manufacture of by-products, which includes fish oils. The collection of these statistics by the two bureaus results in the duplication in the same department of the collection of similar reports on the production of fish oils from the same concerns. In order to avoid this condition it is agreed that the Bureau of the Census will discontinue the collection of statistics concerning the production of fish oils and stocks held by the producers.

It is further agreed that the Bureau of Fisheries will canvass the producers of fish oils quarterly and furnish these statistics to the Bureau of the Census to be incorporated in the quarterly reports on the production, consumption, and stocks of animal and vegetable fats and oils.

The Bureau of the Census will furnish the Bureau of Fisheries its list of producers of fish oils. The Bureau of Fisheries will canvass the estabishments listed as well as any others which may be added from time to time from any available sources. The Bureau of Fisheries will be responsible for the completeness of the canvasses and the accuracy of the statistics, and if desired will furnish the Bureau of the Census a list of the producers of fish oils.

Every effort will be made by the Bureau of the Census to expedite the issuance of the preliminary press bulletins showing the production, factory consumption, and stocks of fish oils. Due credit is to be given to the Bureau of Fisheries for its collection of the data.

Details not covered by this agreement can be adjusted by the two bureaus.

THE PRODUCTION OF CERTAIN FISHERY PRODUCTS IN 1921 AND 1922.

The following table has been prepared to show the general trend of the fish industry in so far as changes can be shown by data available that apply to 1921 and 1922:

Production and value of certain fishery products in 1921 and 1922, compared.

Products.	1921		1922		Increase (+) or decrease (−).	
	Quantity.	Value.	Quantity.	Value.	Quantity (per cent).	Value (per cent).
Fish landed by fishing vessels at Boston and Gloucester, Mass., and Portland, Me.—pounds	150,865,106	$5,722,629	159,875,391	$5,465,932	+6.0	−4.5
Trips—number	7,206		6,349		−11.9	
Fish landed by fishing and collecting vessels at Seattle, Wash.—pounds	26,095,225	2,202,181	26,415,440	2,214,654	+1.2	+.6
Trips—number	866		836		−3.4	
Products of the fisheries of California—pounds	127,728,623		168,969,733		+32.3	
Fish received at Washington, D. C., Municipal Fish Wharf—pounds	9,066,744		6,442,663		−28.9	
Sponges sold at Sponge Exchange, Tarpon Springs, Fla.—pounds	386,390	540,093	526,885	699,092	+36.4	+29.4
Canned salmon:						
Pacific Coast States—cases	1,002,948	9,234,425	733,246	8,633,524	−26.9	−6.5
Alaska—do	2,596,826	19,632,744	4,501,652	29,787,193	+73.3	+51.7
Total, canned salmon—cases	3,599,774	28,867,169	5,234,898	38,420,717	+45.4	+33.1
Canned sardines:						
Maine—do	1,350,631	3,960,916	1,775,878	5,750,109	+31.5	+45.2
California—do	415,587	2,346,446	728,979	3,361,480	+75.4	+43.2
Total, canned sardines—cases	1,766,218	6,307,362	2,504,857	9,111,589	+41.8	+44.4
Canned albacore and tuna, bluefin, yellowfin, and striped—cases	418,821	3,073,681	614,926	4,294,912	+46.8	+39.7
Canned shrimp—do	667,558	3,804,781	586,691	3,064,087	−12.1	−19.4
Canned clams, hard, soft, and razor—cases	226,130	1,166,507	308,640	1,716,365	+36.5	−47.1
Canned oysters—do	455,550	2,179,271	522,549	2,423,616	+14.7	+11.2
All canned fishery products—cases	7,464,210	46,634,706	10,094,549	60,464,947	+35.2	+29.6
Menhaden industry:						
Fish utilized—number	1,031,540,831	1,929,219	1,212,450,669	2,457,690	+17.5	+27.4
Fish meal and scrap produced—tons	82,662	2,286,095	93,576	3,221,758	+13.2	+40.9
Oil—gallons	6,260,478	1,719,892	7,102,677	2,904,833	+13.4	+68.9
Fish oils, other than menhaden—gallons	1,017,074	264,011	1,185,651	441,213	+16.6	+67.1
Fish meal and scrap, other than menhaden—tons	24,611	1,271,047	22,590	1,114,919	−8.2	−12.3
Liquid glue—gallons	347,048	364,415	323,003	278,424	−6.9	−23.6
All by-products		8,351,827		11,390,693		+36.4
Fish, frozen—pounds	79,173,892		75,453,674		−4.7	

CANNED FISHERY PRODUCTS AND BY-PRODUCTS OF THE UNITED STATES AND ALASKA, 1922.

The bureau has made a canvass of the canned fishery products and by-products of the United States and Alaska for 1922, and the statistics were published and distributed to the trade as Statistical Bulletin No. 570. The total value of canned products in 1922 amounted to $60,464,947 and of by-products to $11,390,693. As compared with 1921 there was an increase in the value of canned products of $13,830,241, or 29.65 per cent, and in the value of by-products of $3,038,866, or 36.38 per cent. The canned products consisted principally of canned salmon, sardines, shad, alewives, albacore, tuna, shrimp, crabs, clams, and oysters, and the by-products of fish scrap,

fish meal, and fish oil, and ground oyster shells for use as poultry grit and lime. The fish scrap, fish meal, and fish oil prepared in the menhaden industry are also included under by-products of the fisheries.

CANNED FISHERY PRODUCTS.

CANNED SALMON.

In 1922 there were 179 plants engaged in canning salmon in the Pacific Coast States and Alaska. Of this number 123 were operated in Alaska, 34 in Washington, 20 in Oregon, and 2 in California. The pack of canned salmon in 1922, on the basis of 48 pounds to the case, amounted to 5,234,898 cases, valued at $38,420,717.

In the Pacific Coast States the pack amounted to 733,246 cases, valued at $8,633,524, as follows: Chinook, 314,126 cases, valued at $4,572,607; coho or silver, 204,262 cases, valued at $1,533,173; sockeye, 97,927 cases, valued at $1,816,901; chum, 87,583 cases, valued at $365,303; humpback or pink, 3,551 cases, valued at $18,546; and steelhead, 25,797 cases, valued at $326,994. The pack in Washington amounted to 441,667 cases, valued at $4,823,074; in Oregon, 279,748 cases, valued at $3,614,140; and in California, 11,831 cases, valued at $196,310. The pack in California consisted entirely of chinook salmon.

In Alaska the pack amounted to 4,501,652 cases, valued at $29,787,193, divided as follows: Red or sockeye, 2,070,658 cases, valued at $19,135,696; humpback or pink, 1,658,423 cases, valued at $7,189,494; chum or keta, 565,918 cases, valued at $2,251,540; coho or silver, 175,993 cases, valued at $962,790; and king, chinook, or spring, 30,660 cases, valued at $247,673.

Compared with the previous year there was an increase of 42 salmon canneries in Alaska and a decrease of 1 cannery in the Pacific Coast States, or a total increase of 41 canneries. There was an increase in the pack of canned salmon of 1,635,124 cases, or 45.42 per cent, in quantity and of $9,553,548, or 33.09 per cent, in value. There was an increase in the pack in Alaska of 1,904,826 cases, or 73.35 per cent, in quantity and of $10,154,449, or 51.72 per cent, in value. In the Pacific Coast States there was a decrease of 269,702 cases, or 26.89 per cent, in quantity and of $600,901, or 6.51 per cent, in value. This decrease was due to a falling off in the pack in Washington of 312,379 cases, or 41.43 per cent, in quantity and of $1,201,515, or 19.94 per cent, in value. There was an increase in the pack in Oregon of 40,142 cases, or 16.75 per cent, in quantity and of $537,914, or 17.49 per cent, in value, and also in the pack of California, of 2,535 cases, or 27.26 per cent, in quantity and of $62,700, or 46.93 per cent, in value.

Pack of canned salmon of the Pacific Coast States and Alaska in 1922.

Products.	Pacific Coast States.								Alaska.	
	Washington.		Oregon.		California.		Total.		Southeast.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Coho or silver:										
½-pound flat	48,551	$470,494	25,706	$215,445	.....	.....	74,257	$685,939	20,013	$151,666
1-pound flat	49,244	337,320	27,618	194,877	.....	.....	76,862	532,197	10,773	63,515
1-pound tall	45,704	271,854	7,439	43,183	.....	.....	53,143	315,037	91,861	462,365
Total	143,499	1,079,668	60,763	453,505	.....	.....	204,262	1,533,173	122,647	677,546
Chum or keta:										
½-pound flat	4,627	27,293	636	3,816	.....	.....	5,263	31,109	3,698	21,228
1-pound flat	76	532	.....	.....	.....	.....	76	532	6,185	25,693
1-pound tall	78,387	317,745	3,857	15,917	.....	.....	82,244	333,662	414,383	1,640,135
Total	83,090	345,570	4,493	19,733	.....	.....	87,583	365,303	424,266	1,687,056
Humpback or pink:										
½-pound flat	1,506	9,779	.....	.....	.....	.....	1,506	9,779	30,725	197,953
1-pound flat	.....	.....	.....	.....	.....	.....	.....	.....	28,148	134,268
1-pound tall	2,045	8,767	.....	.....	.....	.....	2,045	8,767	1,273,679	5,461,536
Total	3,551	18,546	.....	.....	.....	.....	3,551	18,546	1,332,552	5,793,757
King, chinook, or spring:										
½-pound flat	69,086	1,097,429	105,470	1,772,959	7,669	$138,042	182,230	3,008,430	2,695	30,640
½-pound oval	300	7,440	76	1,885	.....	.....	376	9,325	.....	.....
1-pound flat	36,036	446,488	51,356	652,707	4,162	58,268	91,554	1,157,463	1,735	15,209
1-pound oval	2,998	56,961	19,552	207,679	.....	.....	22,550	264,640	.....	.....
1-pound tall	11,304	87,701	6,112	45,048	.....	.....	17,416	132,749	1,703	11,448
Total	119,724	1,696,019	182,571	2,680,278	11,831	196,310	314,126	4,572,607	6,133	57,297
Red or sockeye:										
½-pound flat	70,625	1,332,887	12,972	231,755	.....	.....	83,597	1,564,642	57,783	779,582
1-pound flat	13,440	238,236	.....	.....	.....	.....	13,440	238,236	17,579	171,509
1-pound tall	575	9,550	315	4,473	.....	.....	890	14,023	57,783	530,278
Total	84,640	1,580,673	13,287	236,228	.....	.....	97,927	1,816,901	133,145	1,481,369
Steelhead:										
½-pound flat	5,525	79,701	11,944	162,457	.....	.....	17,469	242,158	.....	.....
1-pound flat	1,551	21,714	6,675	61,783	.....	.....	8,226	83,497	.....	.....
1-pound tall	87	1,183	15	156	.....	.....	102	1,339	.....	.....
Total	7,163	102,598	18,634	224,396	.....	.....	25,797	326,994	.....	.....
Grand total	441,667	4,823,074	279,748	3,614,140	11,831	196,310	733,246	8,633,524	2,018,743	9,697,025

Products.	Alaska—Continued.						Grand total.	
	Central.		Western.		Total.			
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Coho or silver:								
½-pound flat	2,224	$17,039	.....	.....	22,237	$168,705	96,494	$854,644
1-pound flat	1,291	8,005	35	$166	12,099	71,686	88,961	603,883
1-pound tall	36,919	192,234	12,877	67,800	141,657	722,399	194,800	1,037,436
Total	40,434	217,278	12,912	67,966	175,993	962,790	380,255	2,495,963
Chum or keta:								
½-pound flat	.....	.....	.....	.....	3,698	21,228	8,961	52,337
1-pound flat	.....	.....	.....	.....	6,185	25,693	6,261	26,225
1-pound tall	91,239	362,440	50,413	202,044	556,035	2,204,619	638,279	2,538,281
Total	91,239	362,440	50,413	202,044	565,918	2,251,540	653,501	2,616,843
Humpback or pink:								
½-pound flat	12,011	75,745	.....	.....	42,736	273,698	44,242	283,477
1-pound flat	2,731	13,655	.....	.....	30,879	147,923	30,879	147,923
1-pound tall	298,226	1,251,399	12,903	54,938	1,584,808	6,767,873	1,586,853	6,776,640
Total	312,968	1,340,799	12,903	54,938	1,658,423	7,189,494	1,661,974	7,208,040

Pack of canned salmon of the Pacific Coast States and Alaska in 1922—Continued.

Products.	Alaska—Continued.						Grand total.	
	Central.		Western.		Total.			
King, chinook, or spring:	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
½-pound flat	1,022	$13,341	53	$742	3,770	$44,723	186,090	$3,053,153
½-pound oval							376	9,325
1-pound flat	2,067	20,538	165	2,002	3,967	37,749	95,521	1,195,212
1-pound oval							22,550	264,640
1-pound tall	7,076	53,168	14,144	100,585	22,923	165,201	40,339	297,950
Total	10,165	87,047	14,362	103,329	30,660	247,673	344,786	4,820,280
Red or sockeye:								
½-pound flat	89,603	1,257,544	24,510	384,901	171,896	2,422,027	255,493	3,986,669
1-pound flat	59,799	614,403	44,071	437,530	121,449	1,223,442	134,889	1,461,678
1-pound tall	383,935	3,447,679	1,335,595	11,512,270	1,777,313	15,490,227	1,778,203	15,504,250
Total	533,337	5,319,626	1,404,176	12,334,701	2,070,658	19,135,696	2,168,585	20,952,597
Steelhead:								
½-pound flat							17,469	242,158
1-pound flat							8,226	83,497
1-pound tall							102	1,339
Total							25,797	326,994
Grand total	988,143	7,327,190	1,494,766	12,762,978	4,501,652	29,787,193	5,234,898	38,420,717

CANNED SARDINES.

In 1922 there was a marked increase in the pack of sardines in both Maine and California. In Maine, 1,775,878 cases were packed, valued at $5,750,109, an increase of 31.5 per cent in the number of cases and 45.2 per cent in value over the pack in 1921, when 1,350,631 cases, valued at $3,960,916, were packed. Of the 1922 pack, 1,454,146 cases were quarter oils, valued at $4,645,436, an average of $3.19 per case, an increase of 10.4 per cent over the average value per case of quarter oils in 1921, which was $2.89. The quantity of herrings utilized was 96,458,400 pounds, valued at $623,198.

In California, 728,979 cases of sardines were packed, valued at $3,361,480, an increase of 75.4 per cent in number of cases and 43.2 per cent in value over the pack in 1921, when 415,587 cases, valued at $2,346,446, were packed. Of the 1922 pack, 697,643 cases, valued at $3,078,760, were pound ovals, with an average value of $4.41 per case, a decrease of 18.4 per cent from the value per case in 1921, when 379,928 cases of pound ovals, valued at $2,056,367, were packed, the average value per case being $5.41.

Pack of sardines in Maine and California, 1922.

Sardines (herring).[1]	Maine.		Sardines (pilchard).	California.	
	Cases.	*Value.*		*Cases.*	*Value.*
In oil: Quarters (100 cans)	1,454,146	$4,645,436	½-pound oval (48 cans)	7,239	$32,182
In mustard:			1-pound oval (48 cans):		
Quarters (100 cans)	101,290	378,163	In tomato sauce	601,111	2,518,843
Three-quarters (48 cans)	213,276	689,008	In mustard	53,993	295,111
In tomato sauce: Quarters (100 cans)	7,166	37,502	All others	42,539	264,806
			1-pound tall (48 cans)	78	232
			½-pound square (100 cans)	21,124	217,953
			½-pound square (100 cans)	2,895	32,353
Total	1,775,878	5,750,109	Total	728,979	3,361,480

[1] The quantity of herring utilized was 96,458,400 pounds, valued at $623,198.

CANNED SHAD AND ALEWIVES.

The pack of canned shad and shad roe is confined to the Pacific Coast States. In 1922 the pack of shad amounted to 2,257 cases, valued at $9,961, and of shad roe to 433 cases, valued at $8,517. In 1921 the pack of shad was 841 cases, valued at $2,455, and the pack of shad roe was 53 cases, valued at $142.

The pack of alewives and alewife roe was prepared in Maryland, Virginia, and North Carolina, mostly in the Chesapeake Bay district. In 1922 the pack of canned alewives was 1,043 cases, valued at $1,994, and of canned roe 38,298 cases, valued at $137,514. In 1921 the pack of canned alewives was 312 cases, valued at $813, and of canned roe, 40,530 cases, valued at $157,841.

Pack of shad and alewives, 1922.

Shad.	Washington, Oregon, and California.		Alewives.	Maryland, Virginia, and North Carolina.	
	Cases.	*Value.*		*Cases.*	*Value.*
½-pound flat (48 cans)	779	$1,620	No. 2 (24 cans)	1,043	$1,994
½-pound oval (48 cans)	174	3,480	Roe:		
1-pound tall (48 cans)	1,304	4,861	No. ½ (48 cans)	768	4,608
Roe:			No. 1 (48 cans)	942	4,134
½-pound flat (48 cans)	283	6,045	No. 2 (24 cans)	36,588	128,772
1-pound oval (48 cans)	150	2,472			
Total	2,690	18,478	Total	39,341	139,508

CANNED ALBACORE, TUNA, AND MACKEREL IN CALIFORNIA.

The total pack of tuna of all varieties in California, where this industry is located, was, in 1922, 614,925 cases, valued at $4,294,912, an increase of 46.8 per cent in number of cases, and 39.7 per cent in value over the pack of 1921, which was 418,821 cases, valued at $3,073,681.

Data are also given in the table for the pack of bonito, yellowtail, and miscellaneous, which includes fish flakes, abalone, mackerel, squid, and "tonno." "Tonno" is striped, bluefin, and yellowfin tuna, canned Italian style, and sold under the Italian label.

Pack of albacore, tuna, bonito, and yellowtail in California, 1922.

Products.	One-fourth pound round cans (48 to case).		One-fourth pound round cans (100 to case).		One-half pound round cans (48 to case).		One-half pound round cans (50 to case).	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Albacore	24,962	$126,139	14,820	$222,300	188,235	$1,368,883	9,436	$108,514
Tuna, bluefin and yellowfin	37,537	154,757	2,390	24,083	101,764	613,344	.....	.....
Tuna, striped	34,772	126,678	3,162	33,690	122,310	622,565	.....	.....
Bonito	.....	.....	5,223	34,879	5,368	24,021	.....	.....
Yellowtail	.....	.....	.....	.....	4,088	17,104	.....	.....
Miscellaneous [1]	22,557	115,785	1,467	14,670	4,049	25,194	.....	.....

[1] Includes fish flakes, abalone, mackerel, squid, and "tonno."

Pack of albacore, tuna, bonito, and yellowtail in California, 1922—Continued.

Products.	One-pound round cans (48 to case).		One-pound tall cans (48 to case).		One-pound oval cans (48 to case).		Four-pound tall cans (12 to case).		Total.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Albacore	34,475	$466,399	.....	.....	.....	.....	635	$12,700	272,563	$2,304,935
Tuna, bluefin and yellowfin	22,926	255,437	.....	.....	.....	.....	.....	.....	164,617	1,047,621
Tuna, striped	17,502	159,423	.....	.....	.....	.....	.....	.....	177,746	942,356
Bonito	.....	.....	.....	.....	.....	.....	.....	.....	10,591	58,900
Yellowtail	.....	.....	315	$1,890	.....	.....	.....	.....	4,403	18,994
Miscellaneous [1]	219	1,861	3,051	22,883	205	$1,640	.....	.....	31,548	182,033

[1] Includes fish flakes, abalone, mackerel, squid, and "tonno."

CANNED SHRIMP AND CRABS.

In 1922 the pack of shrimp was 586,691 cases, valued at $3,064,087, a decrease of 12.1 per cent in number of cases and 19.4 per cent in value from the pack in 1921, which was 667,558 cases, valued at $3,804,781. The pack of crabs in 1922 was 9,111 cases, valued at $104,171, also a decrease from the pack of 1921, which was 11,960 cases, valued at $115,800.

Pack of shrimp in South Atlantic and Gulf States, 1922.

States.	No. 1 cans (4 dozen).		No. 1½ cans (2 dozen).		No. 2½ and No. 10 cans (2 dozen and ½ dozen).		Total.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Georgia and North Carolina	71,004	$360,161	6,289	$33,078	.....	.....	77,293	$393,239
Florida	93,094	512,054	1,724	9,310	.....	.....	94,818	521,364
Alabama	56,434	290,676	3,704	19,333	812	$5,784	60,950	315,793
Mississippi	166,198	840,319	8,268	42,070	.....	.....	174,466	882,389
Louisiana	158,672	840,306	20,492	110,996	.....	.....	179,164	951,302
Total	545,402	2,843,516	40,477	214,787	812	5,784	586,691	3,064,087

Pack of crabs, 1922.

States.	7½-ounce, 8-ounce, and 9-ounce cans (4 dozen).		15-ounce and 16-ounce cans (2 dozen).		Total.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
Virginia, Washington, Maine, and Alaska.	8,401	$95,364	710	$8,807	9,111	$104,171

CANNED CLAMS.

The total pack of hard clams, soft clams, and razor clams in 1922 was 308,640 cases, valued at $1,716,365, which compared with the total pack of 1921—226,130 cases, valued at $1,166,507—was an increase of 36.5 per cent in number of cases and 47.1 per cent in value.

Pack of clams, by States, 1922.

RAZOR CLAMS.

Sizes.	Washington.		Oregon.		Alaska.		Total.	
Whole:	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
No. 1 cans (4 dozen)	9,134	$78,185	500	$5,500	.....	.....	9,634	$83,685
No. 2 cans (2 dozen)	1,394	9,061	300	1,950	.....	.....	1,694	11,011
No. 10 cans (½ dozen)	138	966	.....	.....	.....	.....	138	966
1-pound cans (4 dozen)	.....	.....	.....	.....	1,434	$11,604	1,434	11,604
Minced:								
½-pound flat cans (4 dozen)	51,099	291,422	1,907	11,349	18,078	74,520	71,084	377,291
No. 1 cans (4 dozen)	33,677	238,622	3,971	29,576	.....	.....	37,648	268,198
No. 2 cans (2 dozen)	3,209	19,027	909	5,699	.....	.....	4,118	24,726
10-ounce cans (4 dozen)	.....	.....	.....	.....	11,732	89,634	11,732	89,634
1-pound cans (4 dozen)	.....	.....	.....	.....	1,046	9,249	1,046	9,249
Juice:								
No. 2 cans (2 dozen)	1,076	3,228	.....	.....	.....	.....	1,076	3,228
No. 10 cans (½ dozen)	52	364	.....	.....	.....	.....	52	364
Total	99,779	640,875	7,587	54,074	32,290	185,007	139,656	879,956

HARD CLAMS.

Sizes.	Florida and Washington.		Sizes.	Florida and Washington.	
Whole:	*Cases.*	*Value.*	Bouillon, chowder, and juice:	*Cases.*	*Value.*
No. 1 cans (4 dozen)	15,018	$104,633	No. 1 cans (4 dozen)	9,015	$42,078
No. 1 cans (2 dozen)	291	989	No. 2 cans (2 dozen)	2,391	7,699
No. 2 cans (2 dozen)	11,423	61,664	No. 3 cans (2 dozen)	2,854	15,902
No. 10 cans (½ dozen)	2,048	12,775	No. 10 cans (½ dozen)	650	4,168
Minced:			1½ and 3 ounce bottles	1,102	2,371
½-pound flat cans (4 dozen)	358	1,792	7 and 14 ounce bottles (2 dozen)	3,874	24,554
No. 1 cans (4 dozen)	2,355	14,219			
No. 2 cans (2 dozen)	883	4,415			
No. 10 cans (½ dozen)	87	783	Total	52,349	298,042

SOFT CLAMS.

Sizes.	Maine, Massachusetts, and Rhode Island.		Sizes.	Maine, Massachusetts, and Rhode Island.	
Whole:	*Cases.*	*Value.*	Bouillon, chowder, and broth:	*Cases.*	*Value.*
5 and 5½ ounce cans (4 dozen)	33,589	$157,809	8, 10, and 16 ounce cans (4 dozen)	14,334	$74,320
6 and 8 ounce cans (2 dozen)	6,155	22,916	32-ounce cans (2 dozen)	15,267	81,760
8 and 10 ounce cans (4 dozen)	14,099	84,015	1-gallon cans (½ dozen)	1,126	6,000
8½ and 10-ounce cans (2 dozen)	4,110	19,547	No. 1 cans (2 dozen)	20,000	49,000
1-pound cans (4 dozen)	4,212	25,000	Total	116,635	538,367
2-pound cans (2 dozen)	3,743	18,000			

CANNED OYSTERS.

In 1922 the pack of oysters was 522,549 cases, valued at $2,423,616, an increase of 14.7 per cent in number of cases and 11.2 per cent in value over the pack of 1921, which was 455,550 cases, valued at $2,179,271. The industry is located in the States of Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, and Louisiana. There was a noteworthy decrease in the pack of Maryland, where 80,872 cases were packed, as compared with 156,431 cases in 1921.

Packs of oysters, by States, 1922.

Sizes.	Maryland.		North Carolina.		South Carolina.		Georgia.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
4-ounce cans (4 dozen)	9,710	$47,023	3,756	$16,526	7,601	$28,797	.....	.....
5-ounce cans (4 dozen)	39,312	203,099	18,881	78,924	84,710	369,240	17,639	$78,308
6-ounce cans (4 dozen)	11,320	119,747	.....	.....	96	768	500	4,000
8-ounce cans (2 dozen)	2,414	11,927	2,500	9,500	3,425	12,127	.....	.....
10-ounce cans (2 dozen)	16,657	85,352	3,863	16,117	24,065	100,933	648	2,863
12-ounce cans (2 dozen)	1,459	12,424	.....	.....	.....	.....	25	200
Total	80,872	479,572	29,000	121,067	119,897	511,865	18,812	85,371

Sizes.	Florida.		Alabama.		Louisiana and Mississippi.		Total.	
	Cases.	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*	*Cases.*	*Value.*
4-ounce cans (4 dozen)	.....	.....	568	$2,386	46,381	$199,250	68,016	$293,982
5-ounce cans (4 dozen)	14,019	$66,357	27,168	117,607	117,650	534,544	319,379	1,448,079
6-ounce cans (4 dozen)	.....	.....	.....	.....	.....	.....	11,916	124,515
8-ounce cans (2 dozen)	.....	.....	816	3,229	19,112	82,320	28,267	119,103
10-ounce cans (2 dozen)	15	68	10,745	48,485	37,494	171,495	93,487	425,313
12-ounce cans (2 dozen)	.....	.....	.....	.....	.....	.....	1,484	12,624
Total	14,034	66,425	39,297	171,707	220,637	987,609	522,549	2,423,616

MISCELLANEOUS CANNED FISHERY PRODUCTS.

In addition to the products shown in the tables, there were packed in Maine, Massachusetts, New York, New Jersey, Maryland, Virginia, North Carolina, and Washington, 224,304 cases of miscellaneous fishery products, valued at $840,329. The pack of preserved salmon eggs in Washington amounted to 79,976 pounds, valued at $55,976, and in Oregon, to 33,130 pounds, valued at $16,080.

EXPORTS OF CANNED FISHERY PRODUCTS IN 1922.

Data showing the amount of canned fish exported from the United States during the calendar year 1922, collected and compiled by the Bureau of Foreign and Domestic Commerce, are given in the following table:

Domestic exports of canned fish from the United States, by countries, 1922.

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Azores and Madeira Islands	360	31	120	39	.....	.....	.....	.....
Belgium	2,608,391	250,333	221,300	16,625	.....	.....	110,020	12,570
Denmark	102,144	10,301	29,000	2,400	.....	.....	3,405	2,228
Finland	.....	.....	180	26	39	6	.....	.....
France	32,540	2,743	48,000	6,000	.....	.....	281,363	50,879
Germany	93,431	11,768	14,057	1,956	.....	.....	116	44
Greece	11,350	1,200	8,235	901	.....	.....	11,938	2,263
Hungary	48	6	.....	.....	.....	.....	.....	.....
Iceland, and Faroe Islands	150	8	.....	.....	.....	.....	.....	.....
Italy	1,212,351	108,904	96,081	9,458	.....	.....	1,160	675
Malta, Gozo, and Cyprus Islands	14,400	1,400	.....	.....	.....	.....	.....	.....
Netherlands	618,028	77,002	.....	.....	.....	.....	3,465	852
Norway	36,590	3,909	.....	.....	.....	.....	.....	.....
Poland and Danzig	107	22	.....	.....	.....	.....	.....	.....
Rumania	.....	.....	.....	.....	.....	.....	825	165
Russia in Europe	33,000	4,329	.....	.....	.....	.....	.....	.....
Spain	214	20	.....	.....	.....	.....	14,658	2,601
Sweden	69,506	13,912	.....	.....	.....	.....	4,360	1,266
Switzerland	75,998	10,127	.....	.....	.....	.....	.....	.....
Turkey in Europe	48,760	4,640	.....	.....	.....	.....	70,000	7,500

Domestic exports of canned fish from the United States, by countries, 1922—Continue

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
Ukraine	329,840	28,134	16,450	705			1,974	309
England	23,937,667	3,732,859	244,727	17,740			252,761	54,612
Scotland	346,200	67,407					619	232
Canada:								
Maritime Provinces	25,438	3,537	1,734,662	126,327	450	105	251,928	19,037
Quebec and Ontario	599,834	67,487	4,492	1,101	452	86	104,169	21,933
Prairie Provinces	79,840	14,241	4,861	454			8,546	2,306
British Columbia and Yukon	3,175,943	321,872	2,561	567	1,412	189	82,101	13,491
British Honduras	27,234	3,193	40,740	4,551	276	53	1,307	151
Costa Rica	187,848	17,193	134,530	12,415			23,389	2,157
Guatemala	50,271	5,168	113,908	12,354	15	3	29,381	3,514
Honduras	66,924	9,021	142,708	15,854	456	90	6,347	1,345
Nicaragua	42,003	4,309	44,848	5,595	30	7	5,836	689
Panama	283,390	35,599	160,474	17,798	1,547	126	23,315	5,997
Salvador	8,564	994	45,110	4,573			18,628	2,033
Mexico	2,819,248	227,649	2,736,099	251,103	986	207	556,312	59,399
Miquelon and St. Pierre Islands	2,400	200						
Newfoundland and Labrador			600	106			118	40
Bermuda	41,302	6,440	17,053	2,764			1,208	489
Barbados	22,262	3,450	780	102			44	15
Jamaica	85,548	10,038	235,979	20,851			1,888	450
Trinidad and Tobago	117,381	18,670	62,073	5,875			1,528	490
Other British West Indies	48,284	8,048	28,225	3,966	136	28	4,593	944
Cuba	434,803	38,397	1,122,349	96,433	2,006	290	139,390	13,445
Dominican Republic	167,784	15,417	322,668	39,181	169	33	4,250	890
Dutch West Indies	32,418	5,553	26,158	2,866	30	5	2,658	553
French West Indies	912	73	725	90				
Haiti	2,356	398	1,343	227	12,299	1,200	406	187
Virgin Islands of the U. S.	42,014	5,178	20,163	3,148	230	41	1,408	301
Argentina	477,872	48,188	333,035	28,124			143,700	12,440
Bolivia	125,560	10,483	114,156	10,260			32,410	2,953
Brazil	14,400	3,075	3,762	360			2,476	2,013
Chile	1,893,557	181,242	174,148	15,979			1,810	261
Colombia	290,178	31,592	175,396	20,020	277	43	16,690	3,860
Ecuador	237,196	23,317	265,640	23,973			77,266	6,814
British Guiana	99,632	17,144	77,479	9,384	240	40	5,470	830
Dutch Guiana	76,928	9,517	28,715	4,024			145	45
French Guiana	2,783	400	610	102				
Peru	42,353	4,342	497,397	44,716	204	41	8,641	1,256
Uruguay	3,120	556					218	113
Venezuela	555,873	56,473	57,622	5,757	625	79	6,596	1,756
Aden	24,000	1,900						
Armenia and Kurdistan	350	36						
British India	769,867	95,127	119,859	15,895			12,223	2,339
Ceylon	88,276	10,282	1,290	149	375	82	1,749	277
Straits Settlements	1,893,804	160,220	2,653,713	236,536			234,162	20,812
Other British East Indies	1,516	88	5,371	570				
China	83,459	13,321	284,863	31,049			42,363	4,864
Chosen	1,692	343	365	85			215	78
Java and Madura	1,687,365	149,187	1,385,590	128,496	1,750	109	54,047	5,805
Other Dutch East Indies	249,466	25,830	211,657	21,760			40,867	4,173
Far Eastern Republic			3,640	506	40	28		
French Indo-China	9,168	1,187	6,750	637			75	38
Greece in Asia	9,600	940					44,000	1,760
Hongkong	86,364	13,297	351,440	33,337			26,758	2,865
Japan	5,606	714	9,070	1,559			47,637	3,060
Kwangtung			140,776	12,976				
Palestine and Syria	54,321	5,076	3,644	388			147	43
Philippine Islands	7,719,124	610,114	5,405,313	441,066	777	173	1,573,122	143,750
Russia in Asia			768	100				
Siam	158,538	13,775	2,734	329			508	114
Turkey in Asia	4,800	500						
Australia	6,663,952	1,045,545	992	289			7,072	1,319
British Oceania	88,472	8,487	5,916	220	48	11	848	131
French Oceania	164,122	18,547	25,942	3,957			4,867	620

Domestic exports of canned fish from the United States, by countries, 1922—Continued.

Countries.	Canned salmon.		Sardines.		Flaked fish.		Other canned fish.	
	Pounds.	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*	*Pounds.*	*Dollars.*
New Zealand	149,598	26,413	96	12	.....	.....	537	230
Other Oceania	108,454	10,674	1,741	239	.....	.....	1,644	247
Belgian Kongo	1,268	205	600	50	.....	.....	.....	.....
British West Africa	59,998	6,363	8,042	1,109	.....	.....	42,265	2,616
British South Africa	1,724,928	181,061	11,600	1,579	.....	.....	31,689	5,964
British East Africa	15,360	1,591	.....	.....	.....	.....	.....	.....
Canary Islands	44,792	4,586	.....	.....	.....	.....	.....	.....
Egypt	73,408	9,193	.....	.....	.....	.....	36,024	3,630
Other French Africa	732	75	167	47	.....	.....	.....	.....
Liberia	3,930	403	.....	.....	.....	.....	1,563	69
Morocco	4,925	606	25	5	.....	.....	1,120	260
Portuguese East Africa	88,973	8,814	8,662	1,161	.....	.....	5,467	1,393
Other Portuguese Africa	48	11	.....	.....	.....	.....	68	18
Spanish Africa	2,475	355	.....	.....	.....	.....	2,400	465
Total	63,797,279	7,962,375	20,059,845	1,780,956	24,869	3,075	4,534,273	525,334

BY-PRODUCTS OF THE FISHERIES.

The utilization of waste products of the fisheries to produce valuable by-products continues to hold the attention of the fish trade. In this direction lies a possibility of reducing the excess overhead expense in the fish industry. The principal by-products are fish oils and fish meal and scrap. The total value of all by-products of the fisheries in 1922 was $11,390,693, an increase of 36.4 per cent over the value of the production in 1921, which was $8,351,827.

FISH OILS.

The fish-oil production in the United States and Alaska in 1922 amounted to 8,288,328 gallons, valued at $3,346,046. This does not include the production of whale oil, which in 1922 was 1,863,015 gallons, valued at $731,000, nor sperm oil, which was 384,130 gallons, valued at $153,714. The largest item of fish oil is menhaden oil, of which 7,102,677 gallons were produced, valued at $2,904,833. In 1921 the total production of fish oil was 7,446,281 gallons, valued at $2,078,670. There was thus in 1922 an increase of 11.3 per cent in the total quantity of fish oils (exclusive of whale and sperm) and 61 per cent in the value. The oils produced in 1922 include besides menhaden, whale, and sperm oils, salmon, 25,989 gallons; sardine, 428,859 gallons; tuna, 86,099 gallons; herring, 450,362 gallons; liver, 67,459 gallons; cod liver, 4,080 gallons; miscellaneous fish oils, 122,803 gallons.

FISH SCRAP AND MEAL.

The total value of all fish scrap and meal, green and dry, including that prepared from shrimp and menhaden, was, in 1922, 116,166 tons, valued at $4,336,677, an increase of 8.29 per cent in quantity and 21.9 per cent in value over the production in 1921, which was 107,273 tons, valued at $3,557,142. Of the total amount 93,576 tons, or 80.5 per cent, was produced by menhaden, and 22,590 tons, or 19.5 per cent, by all other fish, the latter amount, valued at $1,114,919, representing a decrease of 8.2 per cent in quantity and

12.3 per cent in value from the amount produced by all other fish in 1921, which was 24,611 tons, valued at $1,271,047. Included in the production of meal and scrap in 1922 are 21,638 tons of dried scrap or meal, 390 tons of crude or green scrap, and 562 tons of shrimp bran.

LIQUID FISH GLUE.

In 1922 the production of liquid fish glue was 323,003 gallons, valued at $278,424, a decrease of 6.9 per cent in quantity and 23.6 per cent in value from the production of 1921, which was 347,048 gallons, valued at $364,415.

POULTRY GRIT AND LIME.

The production of poultry grit from oyster shells in 1922 was 236,021 tons, valued at $2,005,838; in 1921, 185,474 tons, valued at $1,759,120. The production of lime in 1922 was 93,168 tons, valued at $431,213, an increase of 26.3 per cent in quantity, but a decrease of 14.2 per cent in value over the production in 1921, which was 73,764 tons, valued at $502,634. This industry is carried on on the Atlantic coast from Massachusetts to Texas.

Production of various by-products of the fisheries, 1922.

Products.	Massachusetts and Maine.		Maryland.		New York, Virginia, North Carolina, and Florida.	
	Quantity.	*Value.*	*Quantity.*	*Value.*	*Quantity.*	*Value.*
Fish scrap and meal:						
Dried.....tons..	3,455	$146,103	1,236	$28,970	1,593	$52,521
Crude or green.....do....	390	9,175	.....	.....	.....	.....
Oil:						
Herring.....gallons..	25,121	5,726	.....	.....	.....	.....
Sperm.....do....	152,986	81,082	.....	.....	.....	.....
Liver.....do....	67,459	31,774	.....	.....	.....	.....
Cod-liver.....do....	3,980	1,792	.....	.....	.....	.....
Miscellaneous.....do....	99	1,150	3,500	595	11,877	3,469
Liquid glue.....do....	323,003	278,424	.....	.....	.....	.....
Miscellaneous by-products[1].pounds..	291,421	58,198	.....	.....	87,335	8,733
Total.....	.....	613,424	.....	29,565	.....	64,723

Products.	Louisiana.		Washington, Oregon, California, and Alaska.		Total.	
	Quantity.	*Value.*	*Quantity.*	*Value.*	*Quantity.*	*Value.*
Fish scrap and meal:						
Dried.....tons..	.....	.....	15,354	$862,752	21,638	$1,090,346
Crude or green.....do....	.....	.....	.....	.....	390	9,175
Shrimp bran.....do....	562	$15,398	.....	.....	562	15,398
Oil:						
Salmon.....gallons..	.....	.....	25,989	9,435	25,989	9,435
Sardine.....do....	.....	.....	428,859	145,668	428,859	145,668
Tuna.....do....	.....	.....	86,099	62,702	86,099	62,702
Herring.....do....	.....	.....	425,241	144,418	450,362	150,144
Whale.....do....	.....	.....	1,863,015	731,000	1,863,015	731,000
Sperm.....do....	.....	.....	231,144	72,632	384,130	153,714
Liver.....do....	.....	.....	.....	.....	67,459	31,774
Cod-liver.....do....	.....	.....	100	100	4,080	1,892
Miscellaneous.....do....	.....	.....	107,327	34,384	122,803	39,598
Liquid glue.....do....	.....	.....	.....	.....	323,003	278,424
Miscellaneous by-products[1].pounds..	.....	.....	1,256,500	40,850	1,635,256	107,781
Total.....	.....	15,398	.....	2,103,941	.....	2,827,051

[1] Includes shark hides, agar-agar, pearl or fish-scale essence, shark fins, whale bones (skeletons), whale tails, ambergris, herring skins, and alewife scales.

Production of poultry grit and lime from ground oyster shells, 1922.

States.	Poultry grit.		Lime.		Total.	
	Tons.	*Value.*	*Tons.*	*Value.*	*Tons.*	*Value.*
Rhode Island, Pennsylvania, and New Jersey	20,493	$200,831	7,799	$31,873	28,292	$232,704
Maryland	90,249	803,388	38,211	155,119	128,460	958,507
Virginia	26,173	230,115	27,445	182,680	53,618	412,795
North Carolina, South Carolina, and Georgia	6,740	56,165	1,815	9,075	8,555	65,240
Florida	13,800	96,400	112	1,008	13,912	97,408
Alabama	7,154	56,987	510	760	7,664	57,747
Mississippi	32,646	251,872	780	780	33,426	252,652
Louisiana	34,684	274,944	15,956	47,218	50,640	322,162
Texas	4,082	35,136	540	2,700	4,622	37,836
Total	236,021	2,005,838	93,168	431,213	329,189	2,437,051

THE MENHADEN INDUSTRY.

In the menhaden industry in 1922 substantial increases were made in the amount of fish utilized and in the quantities and values of all the important products. Forty-five factories were engaged in the manufacture of products from menhaden, as compared with 39 in 1921. These 45 factories were located as follows: Massachusetts, 1; Connecticut, 1; New York, 2; New Jersey, 3; Delaware, 1; Virginia, 18; North Carolina, 15; Georgia, 1; Florida, 2; and Texas, 1.

The number of fish utilized was 1,212,450,669, or 747,470,402 pounds, valued at $2,457,690, as compared with 1,031,540,831 fish, or 618,924,499 pounds, valued at $1,929,219, produced in 1921, an increase in 1922 of 17.5 per cent in number of fish and 27.4 per cent in value. The amount of fish meal and scrap produced from menhaden in 1922 was 93,576 tons, valued at $3,221,758, an increase of 12.2 per cent in quantity and 40.9 per cent in value over the 82,662 tons produced in 1921, valued at $2,286,905. The 1922 production of meal and scrap was 67,821 tons of dry scrap, valued at $2,665,441, of which 7,172 tons, valued at $390,667, were reported sold as fish meal; 25,712 tons of acidulated scrap, valued at $555,973; and 43 tons of crude or green scrap, valued at $344. The meal and scrap derived from menhaden was 80.5 per cent of all the fish meal and scrap produced in 1922.

The amount of menhaden oil produced in 1922 was 7,102,677 gallons, valued at $2,904,833, as compared with 6,260,478 gallons, valued at $1,719,892, produced in 1921, an increase of 13.4 per cent in quantity and 68.9 per cent in value. The oil derived from menhaden was 85.7 per cent of the total quantity of fish oils produced in 1922 and 86.8 per cent of the total value.

Products of the menhaden industry, by States, 1922.

Products.	Massachusetts, Connecticut, and New York.		New Jersey and Delaware.		Virginia.	
	Quantity.	*Value.*	*Quantity.*	*Value.*	*Quantity.*	*Value.*
Fish utilized: Menhaden ..... number..	258,086,285	$515,344	169,504,000	$358,991	460,612,000	$947,995
Manufactured products:						
Dry scrap and fish meal ..... tons..	18,024	530,606	690	30,538	34,244	1,526,864
Acidulated scrap ..... do....	.....	.....	15,097	311,632	.....	.....
Crude or green scrap .. do....	43	344	.....	.....	.....	.....
Total	18,067	530,950	15,787	342,170	34,244	1,526,864
Oil ..... gallons..	2,066,461	904,252	916,570	416,169	2,560,065	958,831
Grand total	.....	1,435,202	.....	758,339	.....	2,485,695

Products of the menhaden industry, by States, 1922—Continued.

Products.	North Carolina.		Georgia, Florida, and Texas.		Total.	
	Quantity.	*Value.*	*Quantity.*	*Value.*	*Quantity.*	*Value.*
Fish utilized: Menhaden ..... number	188,162,430	$376,320	136,085,954	$259,037	[1] 1,212,450,669	$2,457,690
Manufactured products:						
Dry scrap and fish meal ..... tons	8,783	320,817	6,080	256,616	67,821	2,665,441
Acidulated scrap ... do	6,615	160,341	4,000	84,000	25,712	555,973
Crude or green scrap ..... tons	.....	.....	.....	.....	43	344
Total	15,398	481,158	10,080	340,616	93,576	3,221,758
Oil ..... gallons	967,696	396,055	591,885	229,526	7,102,677	2,904,833
Grand total	.....	877,213	.....	570,142	.....	6,126,591

[1] 747,470,402 pounds.

FROZEN FISH.

COLD-STORAGE HOLDINGS IN 1922.

The year 1922 was the first year of publication by the Bureau of Fisheries of the statistics on frozen fish collected by the Bureau of Markets and Crop Estimates of the Department of Agriculture. Monthly bulletins were issued, showing the holdings, by sections of the country, of the several species. The following table shows the total holdings of all the freezers, 274 in number, which are devoted wholly or in part to the cold storage of fish, together with the totals for the years 1917 to 1921, inclusive, for comparison. It will be seen that the holdings were very much smaller in 1922 than they had been on corresponding dates in several previous years. The time of least holdings was in May, and of greatest holdings in November.

Monthly holdings of frozen fish in the United States in 1922, by species, and in 1917–1921, by totals.

Species.	Month ending—					
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bluefish (all trade sizes)	560,281	288,842	154,308	84,573	76,625	65,731
Butterfish (all trade sizes)	517,671	392,633	226,769	174,142	31,974	45,869
Catfish	[1]	[1]	[1]	[1]	[1]	[1]
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	5,561,416	4,431,776	3,110,959	2,022,514	1,420,733	1,080,265
Ciscoes (tullibees)	1,563,492	1,919,122	1,398,898	1,293,296	1,228,155	1,136,446
Cod, haddock, hake, pollock	1,361,438	1,136,103	912,639	673,813	501,345	391,435
Croakers	72,555	22,802	12,431	27,455	36,916	24,395
Flounders	[1]	[1]	[1]	[1]	[1]	[1]
Halibut (all trade sizes)	6,306,402	4,804,504	3,792,067	2,552,146	2,879,457	3,877,505
Herring, sea (including alewives and bluebacks)	4,147,828	2,493,750	1,157,587	756,686	595,294	1,121,368
Lake trout	1,866,261	1,256,408	700,022	262,413	400,243	497,994
Mackerel (excepting Spanish)	1,480,099	1,333,111	907,933	381,666	670,696	1,929,491
Pike perches and pike or pickerel	[1]	[1]	[1]	[1]	[1]	[1]
Rockfishes	28,939	34,209	62,690	42,489	39,044	[2]
Sablefish (black cod)	1,234,632	1,069,903	934,365	707,126	651,426	580,391
Salmon, silver and fall	2,392,877	1,532,008	1,129,168	535,507	406,181	343,956
Salmon, steelhead trout	549,797	525,122	526,350	268,136	183,498	117,643
Salmon, all other	2,817,996	2,255,775	1,501,731	868,091	725,315	718,773
Sea bass	74,368	61,340	53,123	47,320	49,009	[2]
Scup (porgies)	[1]	[1]	[1]	[1]	[1]	[1]
Shad	279,235	250,562	85,334	62,289	65,719	272,814
Shad roe	22,391	10,564	4,008	37,374	55,013	

[1] Included in "Miscellaneous frozen fish" previous to July 15, 1922.
[2] Included in "Miscellaneous frozen fish" after June 15, 1922.

Monthly holdings of frozen fish in the United States in 1922, by species, and in 1917–1921, by totals—Continued.

Species.	Month ending—					
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Shellfish	(1)	(1)	(1)	(1)	(1)	(1)
Smelts, eulachon, etc	383,769	982,110	1,153,317	447,520	360,663	351,032
Squeteagues or "sea trout"	1,484,601	1,150,765	659,069	415,236	359,431	282,955
Squid	1,879,094	1,438,138	1,008,871	513,843	640,205	1,036,268
Sturgeon and spoonbill cat	(1)	(1)	(1)	(1)	(1)	(1)
Suckers	(1)	(1)	(1)	(1)	(1)	(1)
Whitefish	2,201,436	1,990,535	1,413,991	1,633,224	1,488,930	1,427,316
Whiting	3,440,123	1,971,639	939,166	601,533	681,941	1,445,202
Miscellaneous frozen fish	8,093,511	6,390,541	3,629,918	3,076,583	3,528,104	4,074,226
Total, 1922	48,320,212	37,742,262	25,474,714	17,484,975	17,075,917	20,821,345
Total, 1921	53,851,000	42,116,000	33,404,000	28,444,000	26,346,000	32,311,000
Total, 1920	61,510,357	47,904,057	29,958,132	20,632,834	19,803,817	27,779,230
Total, 1919	80,683,761	67,617,473	50,036,475	37,110,856	37,174,104	48,840,359
Total, 1918	51,116,037	35,907,071	28,457,301	26,548,272	31,403,425	50,298,027
Total, 1917	32,234,530	14,727,099	13,374,429	9,516,217	14,040,024	27,791,047

Species.	Month ending—					
	July 15.	Aug. 15.	Sept. 15.	Oct. 15.	Nov. 15.	Dec. 15.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bluefish (all trade sizes)	146,560	217,436	412,499	616,902	822,088	750,217
Butterfish (all trade sizes)	139,011	270,914	331,408	413,172	698,229	560,308
Catfish	93,850	226,185	223,567	286,840	294,897	276,165
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	987,020	2,784,763	4,921,011	6,396,242	6,065,777	6,035,490
Ciscoes (tullibees)	1,065,332	1,107,863	1,262,472	1,102,933	726,353	691,601
Cod, haddock, hake, pollock	339,608	401,952	399,663	374,282	467,872	578,789
Croakers	75,107	36,631	21,983	6,187	18,105	3,992
Flounders	232,922	253,371	260,994	294,205	368,583	323,004
Halibut (all trade sizes)	4,380,814	4,834,598	6,287,404	6,825,076	5,741,218	4,534,336
Herring, sea (including alewives and bluebacks)	1,086,214	1,584,969	1,939,373	6,426,458	4,064,362	2,936,146
Lake trout	564,824	496,889	426,471	592,295	1,616,778	1,853,804
Mackerel (excepting Spanish)	2,425,336	2,846,563	2,982,542	5,024,591	5,602,906	4,953,093
Pike perches and pike or pickerel	294,740	309,971	326,227	544,572	1,221,608	2,284,614
Rockfishes	(2)	(2)	(2)	(2)	(2)	(2)
Sablefish (black cod)	488,369	527,449	609,989	808,067	904,713	813,479
Salmon, silver and fall	600,519	968,776	2,000,351	3,391,007	4,265,068	3,414,927
Salmon, steelhead trout	208,593	491,643	620,807	674,078	680,250	709,845
Salmon, all other	1,193,740	1,795,048	4,389,069	5,973,497	5,392,880	4,175,559
Sea bass	(2)	(2)	(2)	(2)	(2)	(2)
Scup (porgies)	1,043,186	1,994,110	2,056,438	2,019,059	1,837,128	1,695,801
Shad	300,415	316,930	337,193	349,533	350,019	214,345
Shad roe						
Shellfish	234,951	207,485	196,044	297,906	492,780	563,496
Smelts, eulachon, etc	334,332	332,124	336,185	326,580	299,418	203,858
Squeteagues or "sea trout"	260,400	178,590	439,231	535,027	612,389	531,436
Squid	1,038,565	1,037,814	881,371	801,356	497,286	268,207
Sturgeon and spoonbill cat	257,338	319,535	389,402	434,463	406,616	366,914
Suckers	16,271	14,385	7,739	7,330	12,779	16,954
Whitefish	1,439,629	1,444,187	1,755,583	2,182,448	2,277,889	2,146,540
Whiting	3,047,540	3,786,091	4,009,602	4,048,788	3,931,149	3,406,502
Miscellaneous frozen fish	3,324,856	3,439,898	3,316,526	4,003,889	4,832,643	4,380,408
Total, 1922	25,620,042	32,226,170	41,141,144	54,756,783	54,502,283	48,689,830
Total, 1921	40,160,000	47,431,000	54,469,000	58,899,000	61,228,000	59,125,646
Total, 1920	36,617,706	47,140,132	56,295,975	64,730,531	67,549,377	65,841,000
Total, 1919	59,674,301	65,145,234	69,580,555	76,763,253	78,769,101	74,202,339
Total, 1918	64,864,532	82,554,798	89,203,946	93,811,909	99,631,789	96,600,247
Total, 1917	38,431,221	44,024,666	47,197,660	60,676,722	70,938,957	69,986,671

[1] Included in "Miscellaneous frozen fish" previous to July 15, 1922.
[2] Included in "Miscellaneous frozen fish" after June 15, 1922.

QUANTITIES FROZEN IN 1922.

The following table shows the amount of fish frozen in the United States in 1922, by months, with totals for 1920 and 1921 for comparison. If we reckon the total catch of edible fish in the United States and Alaska as 1,600,000,000 pounds, the total amount of fish frozen—75,453,674 pounds—is about 4.7 per cent of the total.

Fish frozen monthly in 1922, by species, and in 1920 and 1921, by totals.

Species.	Month ending—						
	Jan. 15.	Feb. 15.	Mar. 15.	Apr. 15.	May 15.	June 15.	July 15.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bluefish (all trade sizes)	.....	87	3,038	3,184	4,710	96,538	107,860
Butterfish (all trade sizes)	.....	.....	3,954	.....	20,477	82,516	153,349
Catfish	(1)	(1)	(1)	(1)	(1)	32,995	144,875
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	1,495	16,111	54,955	14,995	9,035	167,351	2,160,231
Ciscoes (tullibees)	20,551	21,655	5,352	.....	54	1,883	100,794
Cod, haddock, hake, pollock	7,240	38,814	121,318	51,615	81,415	26,138	140,489
Croakers	.....	.....	15,245	11,490	.....	64,720	22,527
Flounders	(1)	(1)	(1)	(1)	(1)	22,608	52,854
Halibut (all trade sizes)	366,656	132,730	86,702	60,016	327,932	742,023	602,336
Herring, sea (including alewives and bluefins)	237,800	118,170	180,085	116,995	413,227	127,355	568,875
Lake trout	16,771	16,767	3,914	100,725	164,412	109,125	38,228
Mackerel (excepting Spanish)	59,566	38,077	6,268	272,610	1,332,947	624,264	502,729
Pike perches and pike or pickerel	(1)	(1)	(1)	(1)	(1)	27,941	23,684
Sablefish (black cod)	9,115	20,363	27,696	89,569	10,300	56,114	126,593
Salmon, silver and fall	113,716	66,106	10,639	11,740	79,488	345,895	441,724
Salmon, steelhead trout	2,339	11,320	31,723	.....	4,015	103,436	300,391
Salmon, all other	10,296	11,491	17,718	148,786	286,177	785,093	687,818
Scup (porgies)	(1)	(1)	(1)	(1)	(1)	912,682	991,728
Shad and shad roe	1,312	1,029	36,639	50,806	167,699	22,329	38,644
Shellfish	(1)	(1)	(1)	(1)	(1)	32,194	36,558
Smelts, eulachon, etc	151,053	116,021	33,407	1,381	767	900	2,865
Squeteagues or "sea trout"	7,748	.....	6,753	9,507	15,175	40,383	9,030
Squid	5,000	1,164	.....	207,013	422,219	91,845	124,291
Sturgeon and spoonbill cat	(1)	(1)	(1)	(1)	(1)	88,032	97,009
Suckers	(1)	(1)	(1)	(1)	(1)	.....	151
Whitefish	4,885	8,410	18,781	8,135	4,235	50,273	49,133
Whiting	67,271	308,484	220,225	104,547	953,820	1,856,675	910,336
Miscellaneous frozen fish	369,987	437,143	612,126	717,321	1,551,433	864,929	686,058
Total frozen fish, 1922	1,452,801	1,363,942	1,496,538	1,980,435	5,849,537	7,376,237	9,121,160
Total frozen fish, 1921	2,843,000	1,770,000	2,413,000	2,698,000	9,624,000	10,151,000	9,845,000
Total frozen fish, 1920	2,273,744	2,630,482	2,465,375	3,687,538	10,094,367	12,761,791	13,620,232

Species.	Month ending—					Total.
	Aug. 15.	Sept. 15.	Oct. 15.	Nov. 15.	Dec. 15.	
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bluefish (all trade sizes)	185,485	218,183	191,012	2,067	3,056	815,220
Butterfish (all trade sizes)	88,069	106,410	328,709	85,437	330	869,251
Catfish	8,069	102,914	44,338	15,443	214,550	563,184
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	2,823,391	2,094,303	584,432	1,397,871	921,082	10,245,252
Ciscoes (tullibees)	55,278	13,747	91,512	290,976	139,217	741,019
Cod, haddock, hake, pollock	60,515	112,131	201,621	170,562	33,604	1,045,462
Croakers	9,999	.....	12,691	.....	.....	136,672
Flounders	36,828	52,326	88,017	48,482	4,372	305,487
Halibut (all trade sizes)	1,260,915	1,001,999	234,217	145,975	160,895	5,122,396
Herring, sea (including alewives and bluefins)	397,892	4,696,844	645,882	403,228	58,425	7,964,778
Lake trout	57,219	174,429	1,036,142	434,674	26,204	2,178,610
Mackerel (excepting Spanish)	354,543	2,016,323	606,200	160,424	191,297	6,165,248
Pike perches and pike or pickerel	30,539	248,609	605,551	1,175,429	43,074	2,154,827
Sablefish (black cod)	164,715	282,358	228,486	82,806	17,243	1,115,358
Salmon, silver and fall	938,467	1,583,684	1,247,996	74,517	93,203	5,007,175
Salmon, steelhead trout	122,472	85,983	11,081	16,175	2,485	691,420
Salmon, all other	2,287,400	1,767,568	328,967	86,795	26,490	6,444,599
Scup (porgies)	93,559	50,861	2,829	10,890	782	2,063,331
Shad and shad roe	18,066	27,925	4,886	139	1,009	370,483
Shellfish	63,550	192,902	240,625	222,797	123,762	912,388
Smelts, eulachon, etc	10,103	6,910	8,144	25,211	28,200	384,962
Squeteagues or "sea trout"	303,168	115,169	87,481	1,898	2,275	598,587
Squid	1,370	19,102	31,461	8,796	.....	912,261
Sturgeon and spoonbill cat	73,208	77,024	16,113	963	3,550	355,899
Suckers	398	892	5,679	12,480	833	20,433
Whitefish	280,189	172,720	276,228	301,446	80,463	1,254,898
Whiting	382,197	381,168	323,837	317,680	231,886	6,058,126
Miscellaneous frozen fish	719,338	1,227,596	1,860,332	1,576,834	333,251	10,956,348
Total frozen fish, 1922	10,826,942	16,830,080	9,344,469	7,069,995	2,741,538	75,453,674
Total frozen fish, 1921	9,356,000	9,990,000	9,869,000	8,173,000	2,441,892	79,173,892
Total frozen fish, 1920	11,803,606	11,168,810	9,711,800	9,750,844	4,005,000	93,973,589

(1) Included in "Miscellaneous frozen fish" prior to June 15, 1922.

The amounts of the different species frozen are shown graphically in Figure 3, in which it will be observed that salmon (of all species) stands first in the amount frozen.

QUANTITIES FROZEN IN 1921 AND 1922 COMPARED.

The following table compares the amounts of fish frozen in 1922 with those of the previous year. It will be observed that some

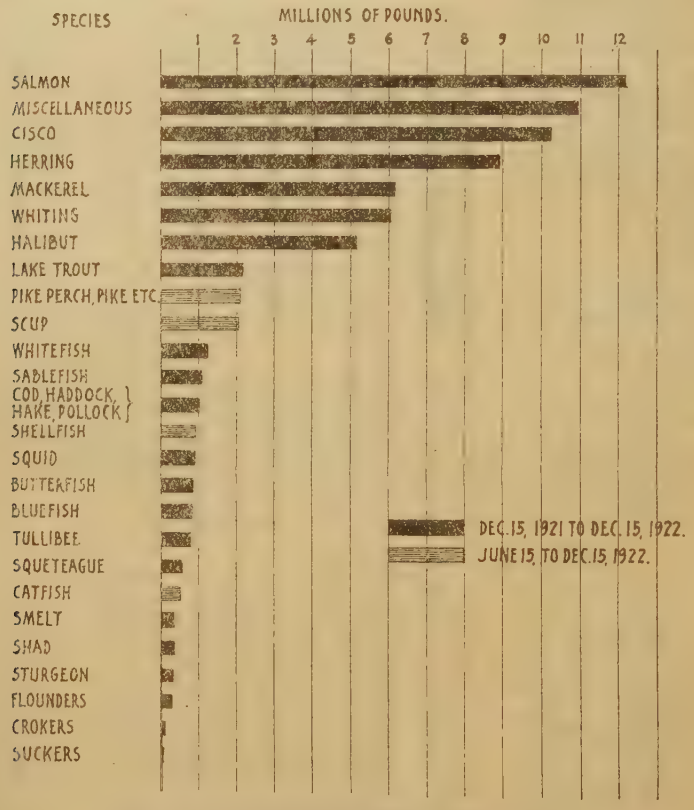


FIG. 3.—Amounts of different species of fish frozen in 1922.

striking changes took place. In 1921 halibut stood first in the order of amount frozen, while in 1922 it dropped to sixth place; salmon changed from second to first place; ciscoes, which were fourth in 1921, were second only to salmon in 1922. Mackerel showed the most phenomenal increase of 129 per cent and moved from seventh place in 1921 to fourth in 1922. This was caused by the unusually large run of tinker mackerel on the New England coast in the fall of 1922. Only the four groups, salmon, ciscoes, mackerel, and whiting increased; all others showed a decrease in quantity frozen.

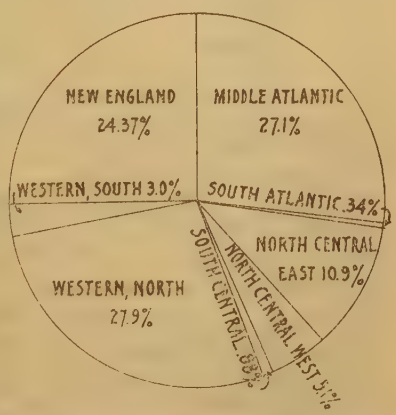
Comparison of amounts of fish frozen in 1922 with those frozen in 1921.

Species.	1922	1921	Increase (+) or decrease (−).
	Pounds.	*Pounds.*	*Per cent.*
Salmon, all species	12,143,194	10,033,619	+ 21.0
Ciscoes, all species	10,245,252	8,649,315	+ 18.4
Herring, sea (including alewives and bluefins)	7,964,778	9,827,671	− 18.9
Mackerel (excepting Spanish)	6,165,248	2,694,684	+128.8
Whiting	6,058,126	5,527,047	+ 9.6
Halibut (all trade sizes)	5,122,396	10,773,803	− 52.4
Lake trout	2,178,610	2,501,995	− 12.9
Pike perches and pike or pickerel	[1] 2,154,827	[2]	
Scup (porgies)	[1] 2,063,331	[2]	
Whitefish	1,254,898	2,403,900	− 47.8
Sablefish (black cod)	1,115,358	1,677,548	− 33.5
Cod, haddock, hake, pollock	1,045,462	1,992,154	− 47.5
Shellfish	[1] 912,388	[2]	
Squid	912,261	2,943,311	− 69.0
Butterfish (all trade sizes)	869,251	959,112	− 9.4
Bluefish (all trade sizes)	815,220	932,727	− 12.6
Tullibees	741,019	[2]	
Squeteagues or "sea trout"	598,587	2,230,253	− 73.0
Catfish	[1] 563,184	[2]	
Smelts, eulachon, etc	384,962	610,753	− 36.9
Shad and shad roe	370,483	428,400	− 13.5
Sturgeon and spoonbill cat	[1] 355,899	[2]	
Flounders	[1] 305,487	[2]	
Croakers	136,672	341,439	− 60.0
Suckers	[1] 20,433	[2]	

[1] From June 15 to Dec. 15 only.
[2] Included in "Miscellaneous frozen fish" prior to June 15, 1922.

QUANTITIES FROZEN IN 1922, BY GEOGRAPHICAL SECTIONS.

The distribution of the fish-freezing business among the several geographical sections of the country by months and by species is shown in the following tables. Eighty per cent of all freezing was in the New England, Middle Atlantic, and North Pacific Coast States. (The Great Lakes fish frozen in New York and Pennsylvania are included in the Middle Atlantic section.) The percentages of the total amount frozen for the different sections are: New England States, 24.67 per cent; Middle Atlantic, 27.12 per cent; South Atlantic, 0.34 per cent; North Central, East, 10.88 per cent; North Central West, 5.11 per cent; South Central, 0.88 per cent; Western, North, 27.94 per cent; Western, South, 3.04 per cent. The smallest amount frozen in any one month was 1,980,435 pounds, or 1.32 per cent of the total, in April; the largest amount frozen in any one month was 16,830,080 pounds, or 22.30 per cent of the total, in September. The distribution of the fish-freezing business is also shown graphically in Figure 4.



G. 4.—Percentages of the total amount of fish frozen by the several sections of the country.

Fish frozen in 1922, by geographical sections.[1]

BY MONTHS.

Month ending the 15th of—	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
January	267,709	400,050	4,242	53,251	158,068
February	307,300	237,530	13,214	131,963	440,979
March	361,124	287,765	22,956	188,171	321,180
April	402,727	414,591	29,445	297,643	222,824
May	3,085,487	787,601	22,245	918,406	198,601
June	3,884,579	929,973	15,691	393,032	163,298
July	3,419,877	2,491,997	13,115	500,319	301,028
August	1,439,081	3,606,289	2,300	777,609	189,581
September	3,705,641	3,825,968	46,850	768,849	352,664
October	1,303,363	3,062,085	83,250	1,955,076	486,513
November	212,941	3,301,666	6,740	1,742,806	506,431
December	227,819	1,123,376	215	482,679	513,979
Total	18,617,648	20,468,891	260,263	8,209,809	3,855,146
Per cent of total	24.67	27.12	0.344	10.88	5.11

Month ending the 15th of—	South Central.	Western, North.	Western, South.	Total.	
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Per cent.*
January	28,094	335,375	206,012	1,452,801	19.2
February	16,262	73,817	142,872	1,363,942	18.1
March	95,000	103,010	117,332	1,496,538	19.8
April	35,026	282,225	295,954	1,980,435	1.32
May	22,526	569,633	245,038	5,849,537	7.75
June	63,342	1,722,917	203,405	7,376,237	9.77
July	67,570	2,175,550	151,704	9,121,160	12.09
August	127,446	4,565,569	119,067	10,826,942	14.35
September	91,223	7,883,660	155,225	16,830,080	22.30
October	11,919	2,337,223	105,040	9,344,469	12.38
November	25,871	957,341	316,199	7,069,995	9.37
December	82,319	76,236	234,915	2,741,538	3.63
Total	666,598	21,082,556	2,292,763	75,453,674	100
Per cent of total	0.88	27.94	3.04		

BY SPECIES.

Species.	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Bluefish (all trade sizes)	4,851	775,849	.....	14,151	1,480
Butterfish (all trade sizes)	191,681	674,544	2,600	426	.....
Catfish [2]	.....	7,590	.....	33,514	507,648
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	113,586	7,962,830	.....	1,995,430	169,506
Ciscoes (tullibees)	.....	438,799	.....	152,733	148,787
Cod, haddock, hake, pollock	342,127	443,409	4,965	56,714	26,594
Croaker	.....	136,672	.....	.....	.....
Flounders [2]	71,435	212,381	.....	.....	74
Halibut (all trade sizes)	603,923	241,244	150	299,060	112,513
Herring, sea (including alewives and blue-backs)	3,293,073	924,166	2,900	70,234	75,355
Lake trout	1,238	528,455	.....	1,405,133	243,394
Mackerel (excepting Spanish)	4,291,906	1,324,435	21,200	42,968	35,572
Pike perches and pike or pickerel [2]	5,467	1,504,202	.....	629,746	15,262
Sablefish (black cod)	.....	138	.....	9,049	8,876
Salmon, silver and fall	301,759	216,443	215	62,574	73,133
Salmon, steelhead trout	.....	37,407	.....	10,101	.....
Salmon, all other	182,282	140,331	.....	411,091	19,752
Scup (porgies) [2]	2,023,704	39,627	.....	.....	.....
Shad and shad roe	33,295	88,777	1,583	45,689	10,698
Shellfish [2]	71,012	525,069	81,740	28,572	76,710
Smelts, eulachon, etc	273,490	36,717	.....	20,228	4,673
Squeteagues or "sea trout"	476	598,111	.....	.....	.....

[1] New England includes the six States of that section; Middle Atlantic—New York, New Jersey, and Pennsylvania; South Atlantic—Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida; North Central, East—Ohio, Indiana, Illinois, Michigan, and Wisconsin; North Central, West—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas; South Central—Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Oklahoma, and Arkansas; Western, North—Montana, Wyoming, Idaho, Washington, Oregon, and Alaska; Western, South—Colorado, New Mexico, Arizona, Utah, Nevada, and California.

[2] Figures show amount frozen after June 15, 1921. Prior to that date, this species was included in "Miscellaneous frozen fish."

Fish frozen in 1922, by geographical sections—Continued.

BY SPECIES—Continued.

Species.	New England.	Middle Atlantic.	South Atlantic.	North Central, East.	North Central, West.
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*
Squid	805,709	96,156	1,164	1,340	7,892
Sturgeon and spoonbill cat [2]	749	192,032	.....	12,897	2,265
Suckers [2]	.....	490	.....	19,792	151
Whitefish	26,000	351,777	.....	768,648	108,423
Whiting	4,282,956	499,509	800	400	1,274,461
Miscellaneous frozen fish	1,696,929	2,471,731	142,946	2,119,319	931,927
Total	18,617,648	20,468,891	260,263	8,209,809	3,855,146

Species.	South Central.	Western, North.	Western, South.	Total.	
	Pounds.	*Pounds.*	*Pounds.*	*Pounds.*	*Per cent.*
Bluefish (all trade sizes)	18,899	.....	.....	815,220	1.08
Butterfish (all trade sizes)	.....	.....	.....	869,251	1.15
Catfish [2]	14,432	.....	.....	563,184	.75
Ciscoes (including bluefin, blackfin, chub, lake herring, etc.)	3,900	.....	.....	10,245,252	13.58
Ciscoes (tullibees)	700	.....	.....	741,019	.98
Cod, haddock, hake, pollock	.....	24,018	147,635	1,045,462	1.38
Croakers	.....	.....	.....	136,672	.18
Flounders [2]	.....	9,547	12,050	305,487	.40
Halibut (all trade sizes)	475	3,724,940	140,091	5,122,396	6.79
Herring, sea (including alwives and blue-backs)	.....	3,597,470	1,580	7,964,778	10.55
Lake trout	390	.....	.....	2,178,610	2.89
Mackerel (excepting Spanish)	.....	7,819	441,348	6,165,248	8.17
Pike perches and pike or pickerel [2]	150	.....	.....	2,154,827	2.85
Sablefish (black cod)	.....	937,990	159,305	1,115,358	1.48
Salmon, silver and fall	.....	3,927,881	425,170	5,007,175	6.63
Salmon, steelhead trout	2,985	635,410	5,517	691,420	.92
Salmon, all other	8,300	5,499,970	182,873	6,444,599	8.54
Scup (porgies) [2]	.....	.....	.....	2,063,331	2.73
Shad and shad roe	1,906	155,399	33,136	370,483	.49
Shellfish [2]	1,734	52,546	75,005	912,388	1.21
Smelts, eulachon, etc	45	49,809	.....	384,962	.51
Squeteagues or "sea trout"	.....	.....	.....	598,587	.79
Squid	.....	.....	.....	912,261	1.21
Sturgeon and spoonbill cat [2]	4,130	143,826	.....	355,899	.47
Suckers [2]	.....	.....	.....	20,433	.03
Whitefish	50	.....	.....	1,254,898	1.66
Whiting	.....	.....	.....	6,058,126	8.03
Miscellaneous frozen fish	608,512	2,315,931	669,053	10,956,348	14.52
Total	666,598	21,082,556	2,292,763	75,453,674	100

[2] Figures show amount frozen after June 15, 1922. Prior to that date, this species was included in "Miscellaneous frozen fish."

NEW ENGLAND VESSEL FISHERIES.

GENERAL STATISTICS.

In the vessel fisheries at Boston and Gloucester, Mass., and Portland, Me., during 1922 there was a decrease in the number of trips with an increase in the quantity and a decrease in the value of the products as compared with 1921. The decrease in the number of trips at Boston was 6.01 per cent, at Gloucester 20.26 per cent, and at Portland 12.26 per cent. At Boston there was an increase in the products landed of 1.74 per cent in the quantity and a decrease of 4.05 per cent in the value; at Gloucester, an increase of 14.34 per cent in the quantity and a decrease of 11.61 per cent in the value; and at Portland, an increase in the products landed of 18.2 per cent in the quantity and 3.3 per cent in the value. Statistics of these fisheries have been collected by the local agents and published in monthly bulletins, showing by species and fishing grounds the quantities and values of fishery products landed by

American fishing vessels during the year at these ports. Two annual bulletins have been issued, one showing the catch by months and the other by fishing grounds.

The fishing fleet at these ports during the calendar year 1922 numbered 338 sail, steam, and gasoline screw vessels, including 28 steam trawlers. These vessels landed at Boston 2,893 trips, aggregating 106,190,403 pounds of fish, valued at $4,020,105; at Gloucester, 1,653 trips, aggregating 37,751,223 pounds, valued at $813,353; and at Portland, 1,803 trips, aggregating 15,933,765 pounds, valued at $632,474. The total for the three ports amounted to 6,349 trips, aggregating 159,875,391 pounds of fresh and salted fish, having a value to the fishermen of $5,465,932.

Compared with the previous year there was a decrease of 857 trips, or 11.89 per cent, in the total number landed at Boston, Gloucester, and Portland, and an increase of 9,010,285 pounds, or 5.97 per cent, in the quantity, with a decrease of $256,697, or 4.48 per cent, in the value of the products landed. There was an increase in the quantity of all the important species except pollock and halibut, and a decrease in the value of all except hake, herring, and swordfish. The catch of cod increased 1,665,151 pounds, or 3.11 per cent, in quantity and decreased $95,488, or 5.51 per cent, in value; haddock increased 2,783,289 pounds, or 4.12 per cent, in quantity and decreased $236,770, or 11.57 per cent, in value; cusk increased 149,035 pounds, or 7.10 per cent, in quantity and decreased $3,277, or 8.66 per cent, in value; and mackerel increased 1,342,567 pounds, or 39.67 per cent, in quantity and decreased $59,127, or 17.61 per cent, in value. Hake increased 838,139 pounds, or 18.47 per cent, in quantity and $1,728, or 15.76 per cent, in value; herring, 30,814 pounds, or 1.10 per cent, in quantity and $40,747, or 100.84 per cent, in value; and swordfish, 1,684,103 pounds, or 105.41 per cent, in quantity and $128.610, or 40.39 per cent, in value. Pollock decreased 1,847,926 pounds, or 26.60 per cent, in quantity and $46,636, or 28.32 per cent, in value, and halibut, 41,879 pounds, or 0.73 per cent in quantity and $19,017, or 2.36 per cent, in value. The catch of Newfoundland herring increased from 551,400 pounds, valued at $19,584, in 1921, to 2,302,420 pounds, valued at $76,855, in 1922. In the various other species combined there was an increase of 2,406,992 pounds, or 77.73 per cent, in quantity and of $32,533, or 23.90 per cent, in value.

The catch of scrod cod landed at these ports decreased from 1,150,577 pounds, valued at $10,844, in 1921, to 815,371 pounds, valued at $9,200, in 1922, and the catch of scrod haddock increased from 30,562 pounds, valued at $535, in 1921, to 253,283 pounds, valued at $4,261, in 1922. The small quantity of these grades landed, as compared with other grades of these species, is said to be due to the fact that the price is so low that the fishermen do not save all that are caught.

The following tables present in detail, by fishing grounds and also by months, the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels for the calendar year 1922. The weights of fresh and salted fish given in these statistics represent the fish as landed from the vessels, and the values are those received by the fishermen. The grades, or sizes, given for certain species are those recognized in the trade.

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922.

Fishing grounds.	Number of trips.	Cod.			
		Large (10 pounds and over).			
		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.					
East of 66° W. longitude.					
La Have Bank	28	540,200	$17,980		
Western Bank	73	1,350,660	54,888	20,750	$726
Quereau Bank	25	29,900	1,748	3,000	105
Green Bank	6	13,600	680		
Grand Bank	41	10,600	443	5,000	175
Cape Shore	36	80,305	3,847		
The Gully	4	6,350	413		
West of 66° W. longitude.					
Browns Bank	289	3,893,106	160,905	2,000	70
Georges Bank	709	7,524,584	275,902	17,000	595
Cashes Bank	1	8,500	375		
Fippenies Bank	1	7,700	193		
Middle Bank	51	107,975	4,531		
Platts Bank	4	8,680	263		
Jeffreys Ledge	159	184,435	12,362		
South Channel	674	2,806,704	134,829		
Nantucket Shoals	49	78,600	4,467		
Off Highland Light	1	775	39		
Off Chatham	39	103,287	5,237		
Seal Island	1	4,150	249		
Shore, general	694	958,186	39,767		
Total	2,893	17,718,297	719,118	47,750	1,671
LANDED AT GLOUCESTER.					
East of 66° W. longitude.					
La Have Bank	20	895,470	17,792	49,215	2,046
Western Bank	81	2,482,205	49,004	1,084,955	43,444
Quereau Bank	24	156,830	3,050	209,170	8,603
Green Bank	25	38,620	915	125,955	4,802
Grand Bank	57	138,975	2,809	772,105	29,881
St. Peters Bank	5			296,780	12,088
Cape Shore	18	14,840	366	16,035	774
St. Anns Bank	1			66,020	2,289
The Gully	6	15,160	300	31,210	1,078
West of 66° W. longitude.					
Browns Bank	47	615,930	11,758	43,130	1,847
Georges Bank	202	2,382,511	47,371	380,265	15,329
South Channel	22	76,545	1,525		
Shore, general	1,133	1,888,828	58,353	1,545	63
Total	1,653	8,705,914	193,243	3,081,385	122,244
LANDED AT PORTLAND.					
East of 66° W. longitude.					
La Have Bank	5	4,500	150	9,465	402
Western Bank	29	1,235,545	23,859	31,010	1,295
Quereau Bank	17	33,200	870	29,730	1,356
Green Bank	11	7,500	150	15,350	599
Grand Bank	10			14,085	600
St. Peters Bank	4	9,500	152	9,320	350
The Gully	4	2,840	57		
West of 66° W. longitude.					
Browns Bank	2	4,900	436		
Georges Bank	15	3,870	116	3,120	140
Fippenies Bank	4	9,760	505		
Platts Bank	56	83,044	4,762		
Jeffreys Ledge	174	236,326	13,836		
Shore, general	1,464	1,542,288	87,290	11,305	457
Total	1,803	3,173,273	132,183	123,385	5,199
Grand total	6,349	29,597,484	1,044,544	3,252,520	129,114

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Cod—Continued.							
		Market (under 10 and over 2½ pounds).				Scrod (1 to 2½ pounds).			
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
East of 66° W. longitude.									
La Have Bank	28	80,630	$1,499						
Western Bank	73	711,830	13,619			20,280	$148		
Quereau Bank	25	25,475	832						
Cape Shore	36	152,368	2,815			3,600	27		
The Gully	4	3,840	115						
West of 66° W. longitude.									
Browns Bank	289	3,304,292	73,356			99,930	887		
Georges Bank	709	4,595,347	99,399			94,840	1,439		
Cashes Bank	1	1,000	30						
Fippenies Bank	1	3,100	54						
Middle Bank	51	68,050	1,685			22,820	351		
Platts Bank	4	7,080	126			3,570	25		
Jeffreys Ledge	159	158,148	5,488			77,355	917		
South Channel	674	3,147,284	70,933			128,765	1,215		
Nantucket Shoals	49	138,730	3,425			5,605	41		
Off Highland Light	1	1,200	36						
Off Chatham	39	78,555	2,369			11,300	120		
Seal Island	1	6,250	125			900	5		
Shore, general	694	376,236	9,717			25,130	253		
Total	2,893	12,859,415	285,623			494,095	5,428		
LANDED AT GLOUCESTER.									
East of 66° W. longitude.									
La Have Bank	20	727,390	10,811	32,120	$1,197	4,620	46	1,580	$43
Western Bank	81	2,050,285	30,023	898,120	31,869	8,687	90	48,340	1,191
Quereau Bank	24	105,115	1,573	97,085	3,599			6,085	165
Green Bank	25	2,985	47	16,403	537			782	16
Grand Bank	57	8,970	135	299,545	10,164			23,670	599
St. Peters Bank	5			114,545	3,354			2,775	61
Cape Shore	18	2,025	35	690	29	215	5		
St. Anns Bank	1			125,950	3,741			11,375	284
The Gully	6	2,315	34	5,815	163				
West of 66° W. longitude.									
Browns Bank	47	493,470	7,522	8,845	289	5,620	45	205	5
Georges Bank	202	2,838,054	41,784	45,915	1,612	14,465	135		
South Channel	22	182,590	2,739			4,780	41		
Shore, general	1,133	3,705	54	325	11	265	2		
Total	1,653	6,416,904	94,757	1,645,358	56,565	38,652	364	94,812	2,364
LANDED AT PORTLAND.									
East of 66° W. longitude.									
La Have Bank	5	240	5	820	31				
Western Bank	29	1,600	23	3,000	113				
Quereau Bank	17	2,870	63	2,900	141				
Green Bank	11	760	11	575	23			200	7
Grand Bank	10			115	5			300	7
St. Peters Bank	4	2,000	25	4,105	133				
The Gully	4	300	5						
West of 66° W. longitude.									
Browns Bank	2	5,400	188			600	3		
Georges Bank	15			550	19			135	3
Fippenies Bank	4	6,490	131			1,255	7		
Platts Bank	56	70,290	1,881			17,790	89		
Jeffreys Ledge	174	194,097	5,104			67,423	357		
Shore, general	1,464	296,556	7,555	445	20	99,774	564	335	7
Total	1,803	580,603	14,991	12,510	485	186,842	1,020	970	24
Grand total	6,349	19,856,922	395,371	1,657,868	57,050	719,589	6,812	95,782	2,388

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Haddock.						Hake.			
		Large (over 2½ pounds).				Scrod (1 to 2½ pounds).		Large (6 pounds and over).			
		Fresh.		Salted.		Fresh.		Fresh.		Salted.	
		Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.
LANDED AT BOSTON											
East of 66° W. longitude.											
La Have Bank	28	137,475	$2,836								
Western Bank	73	2,291,038	49,921								
Cape Shore	36	93,965	2,552								
West of 66° W. longitude.											
Mrowns Bank	289	7,433,658	249,408			300	$2				
Georges Bank	709	13,308,265	330,041			9,000	242				
Fippenies Bank	1	1,015	84								
Middle Bank	51	404,080	15,706			5,460	39	3,385	$192		
Platts Bank	4	8,280	248								
Jeffreys Ledge	159	839,650	38,508			27,205	435	20,590	843		
South Channel	674	24,978,222	709,287			119,100	2,666	67,960	1,966		
Nantucket Shoals	49	2,005,590	62,352			35,800	444				
Off Highland Light	1	4,050	162								
Off Chatham	39	771,640	28,982			920	18	5,595	321		
Seal Island	1	26,900	792								
Shore, general	694	361,131	10,691			640	9	280	8		
Total	2,893	52,664,489	501,570			198,425	3,855	97,810	3,330		
LANDED AT GLOUCESTER.											
East of 66° W. longitude.											
La Have Bank	20	230,896	2,156					26,990	268		
Western Bank	81	2,976,910	29,574	130,055	$2,710			25,975	653	3,010	$35
Quereau Bank	21	3,960	40	465	7			9,730	98	205	5
Green Bank	25	220	2					4,155	54	5,950	104
Grand Bank	57			310	8			4,555	45	9,735	152
St Peters Bank	5			555	11						
The Gully	6							1,850	14		
West of 66° W. longitude.											
Browns Bank	47	339,340	3,394					14,900	151	300	5
Georges Bank	202	5,349,130	53,828					43,825	450	1,135	13
South Channel	22	1,548,820	16,184			675	7	8,330	84		
Shore, general	1,133	2,004,140	57,744					698,345	18,739	1,615	28
Total	1,653	12,453,416	162,922	131,385	2,736	675	7	838,655	20,556	21,950	342
LANDED AT PORTLAND.											
East of 66° W. longitude.											
Western Bank	29	3,108,120	59,968								
West of 66° W. longitude.											
Browns Bank	2	39,630	1,540			750	4				
Fippenies Bank	4	12,275	695			1,435	8				
Platts Bank	56	91,598	4,851			7,885	65	24,515	699		
Jeffreys Ledge	174	891,079	41,719			30,883	216	10,405	366		
Shore, general	1,464	550,723	29,108			13,230	106	5,280	97	300	5
Total	1,803	4,693,425	137,911			54,183	399	40,200	1,162	300	5
Grand total	6,349	69,811,330	1,802,403	131,385	2,736	253,283	4,261	976,665	25,048	22,250	347

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Hake—Continued. Small (under 6 pounds). Fresh.		Salted.		Pollock. Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
East of 66° W. longitude.									
La Have Bank	28	8,825	$126			10,495	$175		
Western Bank	73	11,345	241			168,385	3,709	250	$5
Quereau Bank	25	500	35			290	4		
Grand Bank	41	1,500	36			70	1		
Cape Shore	36	265	5			11,160	200		
West of 66° W. longitude.									
Browns Bank	289	39,505	1,069			424,400	9,984		
Georges Bank	709	51,950	1,223			698,628	14,690		
Cashes Bank	1	400	10			3,600	72		
Fippenies Bank	1	3,400	68			1,030	31		
Middle Bank	51	159,970	3,841			24,499	851		
Platts Bank	4	31,520	467			3,105	91		
Jeffreys Ledge	159	532,892	11,926			250,600	6,671		
South Channel	674	2,390,642	43,588			909,040	19,793		
Nantucket Shoals	49	46,600	764			35,979	925		
Off Highland Light	1	2,400	24			800	8		
Off Chatham	39	57,700	2,065			20,883	729		
Seal Island	1					200	4		
Shore, general	694	81,122	2,619	1,200	$36	852,637	20,719		
Total	2,893	3,420,536	68,107	1,200	36	3,415,801	78,657	250	
LANDED AT GLOUCESTER.									
East of 66° W. longitude.									
La Have Bank	20					23,095	209	125	3
Western Bank	81					126,440	1,211	32,060	636
Quereau Bank	24					1,070	11	670	13
Green Bank	25							205	3
Grand Bank	57							4,100	77
St. Peters Bank	5							100	2
Cape Shore	18					675	7		
St. Anns Bank	1							3,850	58
The Gully	6					110	1	3,315	65
West of 66° W. longitude.									
Browns Bank	47					37,760	308	1,145	18
Georges Bank	202					263,843	2,503	3,355	55
South Channel	22					17,875	174		
Shore, general	1,133					587,857	22,757	80	2
Total	1,653					1,058,725	27,181	49,005	932
LANDED AT PORTLAND.									
East of 66° W. longitude.									
La Have Bank	5	2,350	24						
Western Bank	29			5,800	131	98,665	2,074		
Quereau Bank	17	1,740	16	1,255	19				
Green Bank	11	5,575	56						
Grand Bank	10			55	1				
West of 66° W. longitude.									
Browns Bank	2					655	13		
Georges Bank	15					325	7		
Fippenies Bank	4	10,815	127			6,650	76		
Platts Bank	56	163,305	2,455			49,555	735		
Jeffreys Ledge	174	387,762	7,751			175,786	4,016		
Shore, general	1,464	372,589	7,192	2,350	21	241,623	4,309	45	1
Total	1,803	944,136	17,621	9,460	172	573,259	11,230	45	1
Grand total	6,349	4,364,672	85,728	10,660	208	5,047,785	117,068	49,300	938

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Cusk.				Halibut.			
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
East of 66° W. longitude.									
La Have Bank	28	14,135	$174			73,975	$10,148		
Western Bank	73	16,315	204			153,458	26,535		
Quereau Bank	25	9,685	160			682,498	95,160		
Green Bank	6					186,349	27,511		
Grand Bank	41	1,000	20			1,371,081	162,977		
St. Peters Bank	3					115,440	15,167		
Cape Shore	36	4,445	35			869	154		
The Gully	4	150	3			111,294	16,233		
West of 66° W. longitude.									
Browns Bank	289	687,010	9,602			244,015	43,139		
Georges Bank	709	46,392	843			788,260	115,131		
Cashes Bank	1	2,250	45			610	95		
Fippenies Bank	1	2,100	32			138	26		
Middle Bank	51	47,530	785			3,042	476		
Platts Bank	4	27,145	257			255	29		
Jeffreys Ledge	159	196,870	3,944			6,594	1,411		
South Channel	674	116,830	1,829			177,184	32,007		
Nantucket Shoals	49	2,500	25			2,265	415		
Off Highland Light	1					90	23		
Off Chatham	39	8,855	230			2,849	618		
Seal Island	1	3,700	37			30	3		
Shore, general	694	10,020	192			28,160	3,477		
Total	2,893	1,196,932	18,417			3,948,456	550,735		
LANDED AT GLOUCESTER.									
East of 66° W. longitude.									
La Have Bank	20	53,685	510					60	$3
Western Bank	81	112,810	1,102	2,550	$51	180	7	3,850	230
Quereau Bank	24	17,725	214	4,325	96	160	4	380	27
Green Bank	25	2,169	80	2,480	48	14,982	2,624	310	28
Grand Bank	57	17,620	220	12,855	376			6,495	376
St. Peters Bank	5							1,820	91
Cape Shore	18	2,550	30	200	5	1,810	453		
The Gully	6	3,460	40	2,085	36				
West of 66° W. longitude.									
Browns Bank	47	129,800	1,260	3,485	53			190	17
Georges Bank	202	123,950	1,219	25,050	531	25,220	3,693	2,601	143
South Channel	22	810	10						
Shore, general	1,133	1,200	13						
Total	1,653	465,779	4,698	53,030	1,196	42,352	6,781	15,706	915
LANDED AT PORTLAND.									
East of 66° W. longitude.									
La Have Bank	5	7,650	119			108,150	16,415		
Western Bank	29	5,065	89			244,984	32,537		
Quereau Bank	17	3,600	66			393,090	56,087		
Green Bank	11	3,490	44			296,837	42,373		
Grand Bank	10					264,728	35,444		
St. Peters Bank	4			245	5	73,249	11,836		
The Gully	4					130,632	16,546		
West of 66° W. longitude.									
Browns Bank	2	2,730	79			15,507	2,010		
Georges Bank	15	2,000	40	160	3	73,903	10,090		
Fippenies Bank	4	6,100	89			752	115		
Platts Bank	56	98,495	1,733			3,359	450		
Jeffreys Ledge	174	213,205	3,756			5,176	726		
Shore, general	1,464	188,969	4,218			7,268	997		
Total	1,803	531,304	10,233	405	8	1,617,635	225,626		
Grand total	6,349	2,194,015	33,348	53,435	1,204	5,608,443	783,142	15,706	915

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Mackerel.				Miscellaneous.			
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
East of 66° W. longitude.									
La Have Bank	28					1,376	$156		
Western Bank	73					21,558	554		
Quereau Bank	25					601	77		
Grand Bank	41					6,524	907		
Off Newfoundland	2					[1] 410,000	20,500		
Cape Shore	36	879,235	$68,282	64,400	$4,019	7,541	1,001		
Gulf of St. Lawrence	3	65,105	7,979						
West of 66° W. longitude.									
Browns Bank	289					44,147	2,882		
Georges Bank	709					4,025,104	461,828	34,300	$829
Middle Bank	51	63,090	6,470			4,655	375		
Jeffreys Ledge	159	177,655	18,662			11,996	1,200	2,000	61
South Channel	674	573	146			828,471	44,352	7,300	183
Nantucket Shoals	49	19,100	3,438			141,504	8,024		
Off Chatham	39	19,545	838			4,285	456		
Shore, general	694	1,646,697	76,147	1,000	90	1,639,185	54,097		
Total	2,893	2,871,000	181,962	65,400	4,109	7,146,947	596,409	43,600	1,073
LANDED AT GLOUCESTER.									
East of 66° W. longitude.									
Off Newfoundland	6							[1] 1,892,420	56,355
Cape Shore	18	62,100	3,696	294,890	20,557				
Gulf of St. Lawrence	6			75,665	11,472				
West of 66° W. longitude.									
Shore, general	1,133	312,445	23,470						
Total	1,653	374,545	27,166	370,555	32,029			1,892,420	56,355
LANDED AT PORTLAND.									
East of 66° W. longitude.									
La Have Bank	5					1,705	256		
Western Bank	29					24,648	1,823		
Quereau Bank	17					1,594	193	495	41
Green Bank	11					783	105		
Grand Bank	10					503	60		
Cape Shore	8	168,566	8,105	14,285	844	8,274	955		
West of 66° W. longitude.									
Browns Bank	2					200	10		
Georges Bank	15	393	31			134,385	15,838		
Platts Bank	56					330	5		
Jeffreys Ledge	174	893	178			21,832	828		
Shore, general	1,464	850,970	21,669	10,140	406	2,151,834	22,857		
Total	1,803	1,020,822	29,983	24,425	1,250	2,346,088	42,930	495	41
Grand total	6,349	4,266,367	239,111	460,380	37,388	9,493,035	639,339	1,936,515	57,469

[1] Herring. Other items under "Miscellaneous" include bluebacks, 90,300 pounds, value $760; bonito, 50 pounds, value $5; butterfish, 44,416 pounds, value $3,172; flounders, 3,281,327 pounds, value $134,749, herring, 341,934 pounds, value $4,299; menhaden, 1,699,600 pounds, value $16,888; rosefish, 18,970 pounds, value $473; shad, 540 pounds, value $55; sharks, 8,203 pounds, value $153; skates, 1,150 pounds, value $20; smelt, 3,973 pounds, value $347; sturgeon, 1,050 pounds, value $207; swordfish, 3,281,748 pounds, value $447,016; wolffish, 209,422 pounds, value $3,705; lobster, 107 pounds, value $27; livers, 1,650 pounds, value $21; spawn, fresh, 98,595 pounds, value $6,942; spawn, salted, 43,600 pounds, value $1,073; and tongues, salted, 495 pounds, value $41.

Statement, by fishing grounds, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the calendar year 1922—Continued.

Fishing grounds.	Number of trips.	Total. Fresh.		Total. Salted.		Grand total.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.							
East of 66° W. longitude.							
La Have Bank	28	867,111	$33,094			867,111	$33,094
Western Bank	73	4,744,869	149,819	21,000	$731	4,765,869	150,550
Quereau Bank	25	748,949	98,016	3,000	105	751,949	98,121
Green Bank	6	199,949	28,191			199,949	28,191
Grand Bank	41	1,390,775	164,384	5,000	175	1,395,775	164,559
St. Peters Bank	3	115,440	15,167			115,440	15,167
Off Newfoundland	2	410,000	20,500			410,000	20,500
Cape Shore	36	1,233,753	78,918	64,400	4,019	1,298,153	82,937
Gulf of St. Lawrence	3	65,105	7,979			65,105	7,979
The Gully	4	121,634	16,764			121,634	16,764
West of 66° W. longitude.							
Browns Bank	289	16,170,363	551,234	2,000	70	16,172,363	551,304
Georges Bank	709	31,142,370	1,300,738	51,300	1,424	31,193,670	1,302,162
Cashes Bank	1	16,360	627			16,360	627
Fippenies Bank	1	18,513	488			18,513	488
Middle Bank	51	914,556	35,302			914,556	35,302
Platts Bank	4	89,635	1,506			89,635	1,506
Jeffreys Ledge	159	2,483,990	102,367	2,000	61	2,485,990	102,428
South Channel	674	35,670,775	1,062,611	7,300	183	35,678,075	1,062,794
Nantucket Shoals	49	2,512,273	84,320			2,512,273	84,320
Off Highland Light	1	9,315	292			9,315	292
Off Chatham	39	1,085,414	41,983			1,085,414	41,983
Seal Island	1	41,630	1,215			41,630	1,215
Shore, general	694	5,979,424	217,696	2,200	126	5,981,624	217,822
Total	2,893	106,032,203	4,013,211	158,200	6,894	106,190,403	4,020,105
LANDED AT GLOUCESTER.							
East of 66° W. longitude.							
La Have Bank	20	1,962,146	31,792	83,100	3,292	2,045,246	35,084
Western Bank	81	7,783,492	111,664	2,202,940	80,166	9,986,432	191,830
Quereau Bank	24	294,590	4,990	318,385	12,515	612,975	17,505
Green Bank	25	63,131	3,722	152,085	5,538	215,216	9,260
Grand Bank	57	170,120	3,209	1,128,815	41,633	1,298,935	44,842
St. Peters Bank	5			416,575	15,607	416,575	15,607
Off Newfoundland	6			1,892,420	56,355	1,892,420	56,355
Cape Shore	18	84,215	4,592	311,815	21,365	396,030	25,957
Gulf of St. Lawrence	6			75,665	11,472	75,665	11,472
St. Anns Bank	1			207,195	6,372	207,195	6,372
The Gully	6	22,895	389	42,425	1,342	65,320	1,731
W. of 66° W. longitude.							
Browns Bank	47	1,636,820	24,438	62,300	2,234	1,699,120	26,672
Georges Bank	202	11,040,998	150,983	458,321	17,683	11,499,319	168,666
South Channel	22	1,840,425	20,764			1,840,425	20,764
Shore, general	1,133	5,496,785	181,132	3,565	104	5,500,350	181,236
Total	1,653	30,395,617	537,675	7,355,606	275,678	37,751,223	813,353
LANDED AT PORTLAND.							
East of 66° W. longitude.							
La Have Bank	5	124,595	16,969	10,285	433	134,880	17,402
Western Bank	29	4,718,627	120,373	39,810	1,539	4,758,437	121,912
Quereau Bank	17	436,094	57,295	34,380	1,557	470,474	58,852
Green Bank	11	314,945	42,739	16,125	629	331,070	43,368
Grand Bank	10	265,231	35,504	14,555	613	279,786	36,117
St. Peters Bank	4	84,749	12,013	13,670	488	98,419	12,501
Cape Shore	8	176,840	9,060	14,285	844	191,125	9,904
The Gully	4	133,772	16,608			133,772	16,608
West of 66° W. longitude.							
Browns Bank	2	70,372	4,283			70,372	4,283
Georges Bank	15	214,876	26,122	3,965	165	218,841	26,287
Fippenies Bank	4	55,532	1,753			55,532	1,753
Platts Bank	56	610,166	17,725			610,166	17,725
Jeffreys Ledge	174	2,234,867	78,883			2,234,867	78,883
Shore, general	1,464	6,321,104	185,962	24,920	917	6,346,024	186,879
Total	1,803	15,761,770	625,289	171,995	7,185	15,933,765	632,474
Grand total	6,349	152,189,590	5,176,175	7,685,801	289,757	159,875,391	5,465,932

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922.

Months.	Number of trips.	Cod. Large (10 pounds and over). Fresh. Pounds.	Fresh. Value.	Salted. Pounds.	Salted. Value.
LANDED AT BOSTON.					
January	158	521,773	$40,895		
February	228	2,042,393	73,832		
March	239	2,951,045	73,694	17,000	$595
April	238	1,900,605	55,959	3,000	105
May	261	1,572,600	56,436		
June	232	1,594,337	63,624	10,000	350
July	296	1,231,524	56,315	12,750	446
August	272	1,466,591	71,360		
September	256	1,413,465	58,725		
October	242	1,123,724	59,473	5,000	175
November	286	1,018,607	54,474		
December	185	881,633	54,331		
Total	2,893	17,718,297	719,118	47,750	1,671
LANDED AT GLOUCESTER.					
January	111	23,370	931	805	24
February	79	165,040	4,225	28,420	977
March	371	1,633,893	34,125	90,245	3,237
April	191	717,864	15,154	120,545	4,366
May	59	597,921	11,955	207,530	8,197
June	76	1,247,155	24,878	512,315	19,319
July	59	904,015	17,483	440,980	17,342
August	75	1,019,278	19,886	860,465	34,412
September	72	584,590	11,927	448,055	18,813
October	184	751,875	20,750	353,185	14,752
November	234	815,485	23,179	17,205	715
December	142	245,428	8,750	1,635	90
Total	1,653	8,705,914	193,243	3,081,385	122,244
LANDED AT PORTLAND.					
January	129	104,169	8,697		
February	136	132,806	6,113		
March	127	669,622	14,128		
April	162	392,959	8,966	365	14
May	208	623,029	15,234	25,425	1,001
June	193	348,866	33,850	21,580	844
July	241	294,654	13,123	5,090	179
August	169	193,678	9,553	17,085	735
September	150	138,550	5,806	15,350	629
October	129	91,664	4,918	25,565	1,086
November	97	111,972	6,732		
December	62	71,304	5,063	12,925	711
Total	1,803	3,173,273	132,183	123,385	5,199
Grand total	6,349	29,597,484	1,044,544	3,252,520	129,114
Grounds east of 66° W. longitude	558	7,066,800	179,473	2,789,155	110,613
Grounds west of 66° W. longitude	5,791	22,530,684	865,071	463,365	18,501
Landed at Boston in 1921	3,078	19,439,796	815,904	23,110	896
Landed at Gloucester in 1921	2,073	7,777,379	188,094	3,438,992	143,488
Landed at Portland in 1921	2,055	2,345,199	92,116	213,931	10,097

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Cod—Continued. Market (under 10 and over 2½ pounds). Fresh.		Market (under 10 and over 2½ pounds). Salted.		Scrod (1 to 2½ pounds). Fresh.		Scrod (1 to 2½ pounds). Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
January	158	595,702	$21,442			87,830	$1,321		
February	228	676,082	18,483			58,795	646		
March	239	793,128	15,118			16,740	123		
April	238	865,713	16,880			32,540	211		
May	261	1,374,725	25,033			54,490	913		
June	232	1,286,719	25,349			37,860	243		
July	296	1,287,419	27,272			42,345	287		
August	272	1,546,525	33,486			30,540	219		
September	256	1,181,433	21,970			34,375	232		
October	242	1,397,118	33,789			28,365	308		
November	286	1,038,969	24,627			22,335	262		
December	185	815,882	22,174			47,880	663		
Total	2,893	12,859,415	285,623			494,095	5,428		
LANDED AT GLOUCESTER.									
January	111	8,465	85	4,440	$111	900	5	500	$8
February	79	9,820	126	2,495	61	200	2	105	2
March	371	251,790	4,048	12,800	386	735	7		
April	191	406,865	6,133	19,380	607	4,255	34	657	13
May	59	567,510	8,458	36,470	1,264	5,055	50		
June	76	1,083,615	16,121	271,660	8,653	6,265	62	14,890	372
July	59	892,249	13,144	372,075	13,055	3,397	34	32,080	809
August	75	1,541,575	21,509	331,895	11,049	9,825	91	4,840	86
September	72	1,051,900	15,570	348,103	12,583	4,740	36	29,050	749
October	184	483,895	7,642	243,350	8,699	1,185	9	10,565	272
November	234	98,840	1,564	2,690	97	1,230	24	2,125	53
December	142	20,380	357			865	10		
Total	1,653	6,416,904	94,757	1,645,358	56,565	38,652	364	94,812	2,364
LANDED AT PORTLAND.									
January	129	87,427	3,089			41,970	268		
February	136	73,467	1,832			33,504	183		
March	127	46,614	869			14,969	75		
April	162	39,442	696			13,945	70		
May	208	27,184	446			8,952	46	200	7
June	193	24,324	497	4,955	163	4,085	21	135	3
July	241	13,362	385			4,331	22		
August	169	13,774	452	115	5	2,996	15	300	7
September	150	19,583	551	575	23	3,645	18		
October	129	50,510	1,237	3,820	144	11,145	60		
November	97	114,800	2,762			30,740	158		
December	62	70,116	2,175	3,045	150	16,560	84	335	7
Total	1,803	580,603	14,991	12,510	485	186,842	1,020	970	24
Grand total	6,349	19,856,922	395,371	1,657,868	57,050	719,589	6,812	95,782	2,388
Grounds east of 66° W. longitude	558	3,880,998	61,670	1,601,788	55,099	37,402	316	95,107	2,373
Grounds west of 66° W. longitude	5,791	15,975,924	333,701	56,080	1,951	682,187	6,496	675	15
Landed at Boston in 1921	3,078	12,256,004	316,372	6,995	210	613,115	5,621		
Landed at Gloucester in 1921	2,073	4,230,836	68,002	1,594,449	59,406	75,060	651	107,265	2,435
Landed at Portland in 1921	2,055	1,014,395	24,573	23,351	765	354,462	2,124	675	13

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Haddock.						Hake.			
		Large (over 2½ pounds).				Scrod (1 to 2½ pounds).		Large (6 pounds and over).			
		Fresh.		Salted.		Fresh.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.											
January	158	3,816,020	$206,615			12,750	$566	6,320	$460		
February	228	5,846,805	165,892					10,635	688		
March	239	5,321,155	87,991			600	3	11,765	528		
April	238	3,619,533	108,495			2,915	15	1,000	50		
May	261	4,346,375	104,552					250	10		
June	232	3,310,782	82,915			4,250	43	100	4		
July	296	3,191,784	81,414					150	2		
August	272	3,846,315	82,979								
September	256	4,462,830	88,939			2,300	46	12,700	95		
October	242	4,793,130	144,685			17,370	281	8,400	230		
November	286	5,252,935	174,019			53,370	950	35,705	925		
December	185	4,856,825	173,074			104,870	1,951	10,785	338		
Total	2,893	52,664,489	1,501,570			198,425	3,855	97,810	3,330		
LANDED AT GLOUCESTER.											
January	111	17,070	1,128					2,515	209		
February	79	202,825	4,326					2,810	126		
March	371	3,070,935	53,058					935	9	175	$3
April	191	359,155	11,556					6,720	55	2,040	34
May	59	1,135,340	11,351					2,960	27	875	10
June	76	1,583,951	15,888					890	7	1,230	18
July	59	1,663,735	16,929	54,215	$813			8,810	80	3,180	47
August	75	1,750,250	17,896	135	2	675	7	38,720	769	4,130	57
September	72	1,655,795	16,548	76,005	1,900			37,470	536	2,740	55
October	184	797,550	7,976	1,030	21			280,485	7,642	5,330	95
November	234	124,975	1,250					365,250	8,144	2,250	23
December	142	91,835	5,013					91,090	2,952		
Total	1,653	12,453,416	162,922	131,385	2,736	675	7	838,655	20,556	21,950	342
LANDED AT PORTLAND.											
January	129	135,252	11,289			2,290	18	1,155	58		
February	136	651,153	25,665			6,857	68	2,030	92		
March	127	1,339,815	29,774			3,773	24	220	7		
April	162	1,149,552	24,273			1,505	9	21,770	702		
May	208	960,189	19,676					385	7	300	5
June	193	14,014	995			845	15	230	2		
July	241	29,058	1,727			2,688	29				
August	169	14,284	759			1,750	18	575	7		
September	150	32,802	1,668			1,770	13	1,650	33		
October	129	52,708	2,847			4,893	29	8,720	206		
November	97	174,249	10,288			16,927	108	3,050	42		
December	62	140,349	8,950			10,885	68	415	6		
Total	1,803	4,693,425	137,911			54,183	399	40,200	1,162	300	5
Grand total	6,349	69,811,330	1,802,403	131,385	2,736	253,283	4,261	976,665	25,048	22,250	347
Grounds east of 66° W. longitude	558	8,842,584	147,049	131,385	2,736			73,255	1,132	18,900	296
Grounds west of 66° W. longitude	5,791	60,968,746	1,655,354			253,283	4,261	903,410	23,916	3,350	51
Landed at Boston in 1921	3,078	55,220,576	1,730,948			21,150	408	485,164	16,054		
Landed at Gloucester in 1921	2,073	9,212,239	201,898	15,290	182			591,864	17,807	41,973	759
Landed at Portland in 1921	2,055	2,934,042	112,607			9,412	127	59,734	1,619	260	6

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Hake—Continued.					Pollock.			
	Number of trips.	Small (under 6 pounds).							
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
January	158	97,395	$5,015	.....	.....	94,909	$4,012	.....	.....
February	228	130,540	4,782	.....	.....	93,949	4,044	.....	.....
March	239	97,355	3,223	.....	.....	99,111	3,450	.....	.....
April	238	172,540	3,138	.....	.....	154,218	3,962	.....	.....
May	261	105,955	2,238	.....	.....	217,054	5,778	.....	.....
June	232	150,739	3,394	1,200	$36	228,378	5,535	.....	.....
July	296	222,778	5,562	.....	.....	374,874	7,605	250	$5
August	272	196,762	4,869	.....	.....	417,858	9,546	.....	.....
September	256	425,010	6,158	.....	.....	407,925	7,677	.....	.....
October	242	516,928	10,480	.....	.....	523,135	11,666	.....	.....
November	286	1,017,305	12,294	.....	.....	383,820	6,783	.....	.....
December	185	287,229	6,954	.....	.....	420,570	8,599	.....	.....
Total	2,893	3,420,536	68,107	1,200	36	3,415,801	78,657	250	5
LANDED AT GLOUCESTER.									
January	111	.....	.....	.....	.....	279,840	14,719	240	4
February	79	.....	.....	.....	.....	12,000	656	190	3
March	371	.....	.....	.....	.....	28,750	215	3,720	72
April	191	.....	.....	.....	.....	33,595	280	1,340	20
May	59	.....	.....	.....	.....	24,840	232	1,365	21
June	76	.....	.....	.....	.....	39,648	334	5,085	77
July	59	.....	.....	.....	.....	58,375	510	7,405	145
August	75	.....	.....	.....	.....	84,945	849	8,420	148
September	72	.....	.....	.....	.....	144,065	1,450	17,485	366
October	184	.....	.....	.....	.....	75,560	743	3,755	76
November	234	.....	.....	.....	.....	9,185	95	.....	.....
December	142	.....	.....	.....	.....	267,922	7,098	.....	.....
Total	1,653	.....	.....	.....	.....	1,058,725	27,181	49,005	932
LANDED AT PORTLAND.									
January	129	71,466	2,532	.....	.....	62,731	2,071	.....	.....
February	136	94,214	2,920	.....	.....	93,971	2,700	.....	.....
March	127	57,887	1,503	.....	.....	101,216	2,157	.....	.....
April	162	33,043	642	.....	.....	27,517	549	45	1
May	208	35,663	531	.....	.....	11,893	169	.....	.....
June	193	21,680	254	2,240	19	14,819	152	.....	.....
July	241	35,102	433	1,255	19	33,707	325	.....	.....
August	169	46,626	685	55	1	31,466	392	.....	.....
September	150	60,799	1,049	.....	.....	35,356	445	.....	.....
October	129	104,370	1,789	5,800	131	54,011	781	.....	.....
November	97	295,765	3,475	.....	.....	70,523	829	.....	.....
December	62	87,521	1,808	110	2	36,049	660	.....	.....
Total	1,803	944,136	17,621	9,460	172	573,259	11,230	45	1
Grand total	6,349	4,364,672	85,728	10,660	208	5,047,785	117,068	49,300	938
Grounds east of 66° W. longitude	558	32,100	539	7,110	151	440,455	7,602	44,675	862
Grounds west of 66° W. longitude	5,791	4,332,572	85,189	3,550	57	4,607,330	109,466	4,625	76
Landed at Boston in 1921	3,078	2,474,738	54,598	.....	.....	2,748,216	67,537	.....	.....
Landed at Gloucester in 1921	2,073	.....	.....	.....	.....	3,429,405	83,338	48,307	831
Landed at Portland in 1921	2,055	882,375	18,760	.....	.....	715,398	12,854	3,685	82

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Cusk.				Halibut.			
		Fresh.		Salted.		Fresh.		Salted.	
LANDED AT BOSTON.		*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
January	155	113,155	$2,750	.....	.....	38,692	$8,889	.....	.....
February	228	132,445	2,653	.....	.....	188,834	32,115	.....	.....
March	239	163,438	1,889	.....	.....	483,722	76,255	.....	.....
April	238	157,295	1,805	.....	.....	486,342	57,171	.....	.....
May	261	97,445	1,102	.....	.....	479,871	64,920	.....	.....
June	232	33,520	562	.....	.....	395,476	56,843	.....	.....
July	296	35,407	538	.....	.....	614,356	68,277	.....	.....
August	272	57,905	726	.....	.....	549,087	67,383	.....	.....
September	256	45,790	673	.....	.....	404,696	59,709	.....	.....
October	242	112,302	1,735	.....	.....	230,620	39,231	.....	.....
November	286	89,145	1,392	.....	.....	47,091	11,310	.....	.....
December	185	159,085	2,592	.....	.....	29,669	8,632	.....	.....
Total	2,893	1,196,932	18,417	.....	.....	3,948,456	550,735	.....	.....
LANDED AT GLOUCESTER.									
January	111	210	2	.....	.....	.....	.....	.....	.....
February	79	3,899	35	1,385	$26	.....	.....	.....	.....
March	371	18,860	188	980	22	14,982	2,624	.....	.....
April	191	89,915	871	1,685	28	.....	.....	.....	.....
May	59	47,145	496	4,490	75	9,140	1,043	180	$22
June	76	46,920	513	22,470	485	.....	.....	2,050	231
July	59	60,185	624	8,125	165	340	11	5,190	190
August	75	86,530	813	5,900	232	.....	.....	6,366	344
September	72	44,400	510	5,400	111	16,080	2,650	1,480	97
October	184	36,385	367	1,785	36	.....	.....	365	26
November	234	21,760	207	810	16	.....	.....	75	5
December	142	9,570	72	.....	.....	1,810	453	.....	.....
Total	1,653	465,779	4,698	53,030	1,196	42,352	6,781	15,706	915
LANDED AT PORTLAND.									
January	129	65,105	2,049	.....	.....	1,090	184	.....	.....
February	136	80,711	1,425	.....	.....	31,822	4,888	.....	.....
March	127	74,625	807	.....	.....	65,964	11,971	.....	.....
April	162	51,110	720	.....	.....	91,141	12,654	.....	.....
May	208	14,283	340	.....	.....	313,628	42,043	.....	.....
June	193	10,632	245	405	8	186,854	26,351	.....	.....
July	241	12,778	364	.....	.....	243,168	29,207	.....	.....
August	169	16,992	619	.....	.....	260,388	30,373	.....	.....
September	150	20,137	508	.....	.....	211,581	30,595	.....	.....
October	129	56,896	1,020	.....	.....	197,472	33,569	.....	.....
November	97	81,055	1,095	.....	.....	2,767	347	.....	.....
December	62	46,980	1,041	.....	.....	11,760	3,444	.....	.....
Total	1,803	531,304	10,233	405	8	1,617,635	225,626	.....	.....
Grand total	6,349	2,194,015	33,348	53,435	1,204	5,608,443	783,142	15,706	915
Grounds east of 66° W. longitude	558	275,554	3,110	24,740	617	4,223,766	568,211	12,915	755
Grounds west of 66° W. longitude	5,791	1,918,461	30,238	28,695	587	1,384,677	214,931	2,791	160
Landed at Boston in 1921	3,078	881,288	16,111	800	16	3,808,468	556,592	.....	.....
Landed at Gloucester in 1921	2,073	576,995	7,368	37,550	761	385,040	39,447	48,321	7,063
Landed at Portland in 1921	2,055	601,699	13,569	83	4	1,424,089	199,959	110	13

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Mackerel.				Miscellaneous.[1]			
		Fresh.		Salted.		Fresh.		Salted.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.									
January	158					252,700	$14,092	1,800	$34
February	228					381,149	17,543	15,800	393
March	239	100	$61			914,341	36,149	26,000	646
April	238					319,735	9,997		
May	261	92,552	15,227			484,567	9,875		
June	232	816,565	59,530	65,400	$4,109	308,453	39,351		
July	296	15,238	761			1,632,707	203,506		
August	272	21,045	836			1,231,758	148,963		
September	256	637,382	25,054			799,390	75,797		
October	242	729,789	25,579			417,052	17,251		
November	236	558,329	54,914			231,426	12,563		
December	185					173,669	11,322		
Total	2,893	2,871,000	181,962	65,400	4,109	7,146,947	596,409	43,600	1,073
LANDED AT GLOUCESTER.									
January	111							387,600	8,500
February	79								
March	371							103,800	2,595
April	191								
May	59								
June	76	62,100	3,696	292,090	20,137				
July	59	11,725	352						
August	75								
September	72								
October	184	104,467	2,030	45,902	6,966				
November	234	196,253	21,088	32,563	4,926				
December	142							1,401,020	45,260
Total	1,653	374,545	27,166	370,555	32,029			1,892,420	56,355
LANDED AT PORTLAND.									
January	129					5,855	250		
February	136					18,443	673		
March	127					3,962	113		
April	162					1,535	29		
May	208					216,301	2,739		
June	193	160,833	7,551	14,285	844	119,722	1,556		
July	241	5,753	618			1,617,490	22,590	95	6
August	169	103,475	3,873			276,915	11,180	400	35
September	150	339,415	9,107			66,225	3,224		
October	129	393,379	6,962	10,140	406	18,034	490		
November	97	17,967	1,872			1,311	69		
December	62					295	17		
Total	1,803	1,020,822	29,983	24,425	1,250	2,346,088	42,930	495	41
Grand total	6,349	4,266,367	239,111	460,380	37,388	9,493,035	639,339	1,936,515	57,469
Grounds east of 66° W. longitude	558	1,175,006	88,062	449,240	36,892	485,107	26,587	1,892,915	56,396
Grounds west of 66° W. longitude	5,791	3,091,361	151,049	11,140	496	9,007,928	612,752	43,600	1,073
Landed at Boston in 1921	3,078	1,993,286	201,473	60,400	5,244	4,335,523	402,151		
Landed at Gloucester in 1921	2,073	244,994	36,734	586,100	40,038	222,707	12,364	351,400	9,584
Landed at Portland in 1921	2,055	496,400	51,957	3,000	180	2,397,411	70,786	600	33

[1] Includes herring from Newfoundland, 410,000 pounds frozen, value $20,500, and 1,892,420 pounds salted, value $56,355.

Statement, by months, of quantities and values of certain fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by American fishing vessels during the year 1922—Continued.

Months.	Number of trips.	Total. Fresh.		Total. Salted.		Grand total.	
		Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
LANDED AT BOSTON.							
January	158	5,637,246	$306,057	1,800	$34	5,639,046	$306,091
February	228	9,561,627	320,678	15,800	393	9,577,427	321,071
March	239	10,852,500	298,484	43,000	1,241	10,895,500	299,725
April	238	7,712,436	257,683	3,000	105	7,715,436	257,788
May	261	8,825,884	286,084			8,825,884	286,084
June	232	8,167,179	337,393	76,600	4,495	8,243,879	341,888
July	296	8,648,582	451,539	13,000	451	8,661,582	451,990
August	272	9,364,386	420,367			9,364,386	420,367
September	256	9,827,296	345,075			9,827,296	345,075
October	242	9,897,933	344,708	5,000	175	9,902,933	344,883
November	286	9,749,037	354,513			9,749,037	354,513
December	185	7,788,097	290,630			7,788,097	290,630
Total	2,893	106,032,203	4,013,211	158,200	6,894	106,190,403	4,020,105
LANDED AT GLOUCESTER.							
January	111	332,370	17,079	393,585	8,647	725,955	25,726
February	79	396,594	9,496	32,595	1,069	429,189	10,565
March	371	5,020,880	94,274	211,720	6,315	5,232,600	100,589
April	191	1,618,369	34,083	145,647	5,068	1,764,016	39,151
May	59	2,389,911	33,615	250,910	9,589	2,640,821	43,204
June	76	4,070,544	61,499	1,121,790	49,292	5,192,334	110,791
July	59	3,602,831	49,167	923,250	32,566	4,526,081	81,733
August	75	4,531,798	61,820	1,222,151	46,330	5,753,949	108,150
September	72	3,539,010	49,227	928,313	34,674	4,467,358	83,901
October	184	2,531,402	47,159	665,267	30,943	3,196,669	78,102
November	234	1,632,978	55,551	57,718	5,835	1,690,696	61,386
December	142	728,900	24,705	1,402,655	45,350	2,131,555	70,055
Total	1,653	30,395,617	537,675	7,355,606	275,678	37,751,223	813,353
LANDED AT PORTLAND.							
January	129	578,510	30,505			578,510	30,505
February	136	1,218,978	46,559			1,218,978	46,559
March	127	2,378,667	61,428			2,378,667	61,428
April	162	1,823,519	49,310	410	15	1,823,929	49,325
May	208	2,211,507	81,231	25,925	1,013	2,237,432	82,244
June	193	906,904	71,489	43,600	1,881	950,504	73,370
July	241	2,292,091	68,823	6,440	204	2,298,531	69,027
August	169	962,919	57,926	17,955	783	980,874	58,709
September	150	931,513	53,017	15,925	652	947,438	53,669
October	129	1,043,802	53,908	45,325	1,767	1,089,127	55,675
November	97	921,126	27,777			921,126	27,777
December	62	492,234	23,316	16,415	870	508,649	24,186
Total	1,803	15,761,770	625,289	171,995	7,185	15,933,765	632,474
Grand total	6,349	152,189,590	5,176,175	7,685,801	289,757	159,875,391	5,465,932
Grounds east of 66° W. longitude	558	26,533,027	1,083,751	7,067,930	266,790	33,600,957	1,350,541
Grounds west of 66° W. longitude	5,791	125,656,563	4,092,424	617,871	22,967	126,274,434	4,115,391
Landed at Boston in 1921	3,078	104,277,324	4,183,769	91,305	6,366	104,368,629	4,190,135
Landed at Gloucester in 1921	2,073	26,746,519	655,703	6,269,647	264,547	33,016,166	920,250
Landed at Portland in 1921	2,055	13,234,616	601,051	245,695	11,193	13,480,311	612,244

The greater part of the fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by fishing vessels each year are taken from fishing grounds off the coast of the United States. In the calendar year 1922, 78.96 per cent of the quantity and 75.27 per cent of the value landed by fishing vessels were from these grounds; 4.16 per cent of the quantity and 8.17 per cent of the value, consisting mostly of cod, halibut, and herring, were from fishing banks off the coast of Newfoundland; and 16.88 per cent of the quantity and 16.56 per cent of the value from fishing grounds off the Canadian

Provinces. There was some falling off from the previous year in the percentage of products from grounds off the United States, with a small increase in that for Newfoundland and the Canadian Provinces. Newfoundland herring constituted 1.44 per cent of the quantity and 1.4 per cent of the value of the fishery products landed at these ports during the year. The herring were taken from the treaty coast of Newfoundland, and the cod, haddock, hake, halibut, and other species from that region were obtained from fishing banks on the high seas. All fish caught by American fishing vessels off the coast of the Canadian Provinces were from offshore fishing grounds. The catch from each of these regions is given in detail in the following table:

Quantity and value of fish landed by American fishing vessels at Boston and Gloucester, Mass., and Portland, Me., in 1922, from fishing grounds off the coast of the United States, Newfoundland, and Canadian Provinces.

Species.	United States.		Newfoundland.		Canadian Provinces.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Cod:								
Fresh	39,177,495	$1,204,889	233,510	$5,367	10,762,990	$236,471	50,173,995	$1,446,727
Salted	520,120	20,467	1,701,610	63,401	2,784,440	104,684	5,006,170	188,552
Haddock:								
Fresh	61,195,629	1,658,823	220	2	8,868,764	147,839	70,064,613	1,806,664
Salted			865	19	130,520	2,717	131,385	2,736
Hake:								
Fresh	5,235,982	109,105	15,785	191	89,570	1,480	5,341,337	110,776
Salted	6,900	108	15,740	257	10,270	190	32,910	555
Pollock:								
Fresh	4,607,130	109,462	70	1	440,585	7,605	5,047,785	117,068
Salted	4,625	76	4,405	82	40,270	780	49,300	938
Cusk:								
Fresh	1,914,761	30,201	24,279	364	254,975	2,783	2,194,015	33,348
Salted	28,695	587	15,580	429	9,160	188	53,435	1,204
Halibut:								
Fresh	1,384,647	214,928	2,322,666	297,932	1,901,130	270,282	5,608,443	783,142
Salted	2,791	160	8,625	495	4,290	260	15,706	915
Mackerel:								
Fresh	3,091,361	151,049			1,175,006	88,062	4,266 367	239,111
Salted	11,140	496			449,240	36,892	460,380	37,388
Herring:								
Fresh	341,934	4,299	410,000	20,500			751,934	24,799
Salted			1,892,420	56,355			1,892,420	56,355
Swordfish: Fresh	3,229,137	441,370	7,810	1,072	44,801	4,574	3,281,748	447,016
Miscellaneous:								
Fresh	5,436,857	167,083			22,496	441	5,459,353	167,524
Salted	43,600	1,073			495	41	44,095	1,114
Total	126,232,804	4,114,176	6,653,585	446,467	26,989,002	905,289	159,875,391	5,465,932

SPECIES.

COD.

In 1922 there was a decrease of 60 vessels in the fishing fleet landing fish at Boston, Gloucester, and Portland, as compared with 1921. There were 17 vessels in the salt-bank fishery, or 6 fewer than in 1921, and 94 in the market fishery, or 4 fewer than in 1921. These vessels landed their fares of cod and other ground fish at these ports during the year, and large quantities were also landed by vessels fishing on the shore grounds. The catch of cod landed at these ports during the year was 55,180,165 pounds, valued at $1,635,279, of which 50,173,995 pounds, valued at $1,446,727 were landed fresh, and 5,006,170 pounds, valued at $188,552, were landed salted. Cod ranked second in both quantity and value among the various species landed.

HADDOCK.

The catch of haddock ranked first in both quantity and value, exceeding that of cod by 15,015,833 pounds in quantity and $174,121 in value. The quantity of haddock landed at these ports by fishing vessels during the year was 70,195,998 pounds, valued at $1,809,400, all landed fresh except 131,385 pounds salted, valued at $2,736. These fish were taken chiefly from Western Bank, Browns Bank, Georges Bank, and South Channel, and the greater part of the catch, or 52,862,914 pounds, valued at $1,505,425, was landed at Boston.

HAKE.

The catch of hake amounted to 5,374,247 pounds, valued at $111,331, all landed fresh except 32,910 pounds salted, valued at $555. Of this catch, 3,519,546 pounds, valued at $71,473, were landed at Boston, 860,605 pounds, valued at $20,898, at Gloucester, and 994,096 pounds, valued at $18,960, at Portland.

POLLOCK.

The catch of pollock amounted to 5,097,085 pounds, valued at $118,006, all landed fresh, except 49,300 pounds salted, valued at $938. The greater part of this catch, or 3,416,051 pounds, valued at $78,662, was landed at Boston. The catch was obtained principally from Browns Bank, Georges Bank, Jeffreys Ledge, South Channel, and shore grounds.

CUSK.

The catch of cusk was 2,247,450 pounds, valued at $34,552, all fresh except 53,435 pounds salted, valued at $1,204. More than half of the catch was landed at Boston. There was an increase in the catch of cusk of 149,035 pounds in quantity, with a decrease of $3,277 in value as compared with 1921.

HALIBUT.

The catch of halibut was 5,624,149 pounds, valued at $784,057, all landed fresh except 15,706 pounds salted, valued at $915. There was a small decrease in the catch in both quantity and value as compared with 1921. The quantity landed at Boston was 3,948,456 pounds, valued at $550,735; at Gloucester, 58,058 pounds, valued at $7,696; and at Portland, 1,617,635 pounds, valued at $225,626.

MACKEREL.

The total catch of fresh mackerel taken by the American fishing fleet in 1922 was 53,703 barrels, compared with 40,323 barrels in 1921, an increase of 13,380 barrels. The total catch of salted mackerel was 2,749 barrels, compared with 3,242 barrels in 1921, a decrease of 493 barrels. The quantity of mackerel landed at Boston, Gloucester, and Portland during the year was 4,726,747 pounds, valued at $276,499, of which 4,266,367 pounds, valued at $239,111, were fresh and 460,380 pounds, valued at $37,388, were salted. There was an increase in the total catch of mackerel landed by fishing vessels at these ports of 1,342,567 pounds in quantity and a decrease of $59,127 in value, as compared with 1921.

In 1922 the total catch of mackerel up to July 1 was 25,000 barrels fresh and 2,344 barrels salted, compared with 33,632 barrels fresh and 3,143 barrels salted for the same period in 1921. In the southern mackerel fishery both the purse-seine vessels and the gill-net vessels had a poor season. The weather was favorable for fishing, but the mackerel were not abundant. The fish landed were practically all of large and medium size and sold from 9 to 30 cents per pound, according to market conditions. The first mackerel landed sold at 60 cents per pound. The southern fleet was about the same size as in 1921. The Cape Shore fleet was larger than last year but less successful. The first arrival was on May 25 and consisted of large and medium fish, which sold at 18.6 cents per pound. On June 2, fresh mackerel sold at 6½ cents per pound from the vessel, the lowest price since 1919. Cape Shore salted mackerel sold from $12 to $13 per barrel.

SWORDFISH.

The catch of swordfish amounted to 3,281,748 pounds, valued at $447,016. There were 50 vessels engaged in this fishery, or 16 fewer than in the previous year, but there was an increase in the catch of 105.41 per cent in quantity and 40.39 per cent in value.

FLOUNDERS.

The catch of flounders in the vessel fishery was 3,281,327 pounds, valued at $134,749, an increase of 676,670 pounds, or 25.97 per cent in quantity and of $22,793, or 20.35 per cent, in value, as compared with 1921. The catch taken by boats under 5 tons net tonnage is not included in these statistics.

HERRING.

The catch of herring amounted to 2,644,354 pounds, valued at $81,154. Of this quantity, 341,934 pounds, valued at $4,299, were taken off the coast of the United States and landed fresh, and the remainder, including 410,000 pounds, fresh, frozen, valued at $20,500, and 1,892,420 pounds, salted, valued at $56,355, were Newfoundland herring.

OTTER-TRAWL FISHERY.

In 1922 there were 578 trips landed at Boston, Gloucester, and Portland by otter-trawl vessels, amounting to 50,804,604 pounds of fish, valued at $1,259,487, or 31.78 per cent of the quantity and 23.04 per cent of the value of the total catch landed by fishing vessels at these ports during the year. The catch included cod, 11,161,947 pounds, valued at $279,585; haddock, 35,878,524 pounds, valued at $824,963; hake, 576,370 pounds, valued at $11,288; pollock, 919,177 pounds, valued at $19,181; cusk, 3,785 pounds, valued at $30; halibut, 157,813 pounds, valued at $28,446; mackerel, 120,960 pounds, valued at $13,202; and other species, 1,986,028 pounds, valued at $82,792. The catch by otter trawls consists principally of haddock, which in 1922 amounted to 51.11 per cent of the quantity and 45.59 per cent of the value of the entire catch of this species landed. The greater part of the catch by otter trawls was taken from Georges Bank and South Channel.

The following tables give, by fishing grounds and by months, the catch landed by otter trawlers at these ports in 1922, and also the catch of cod, haddock, and hake landed by them in various years:

Fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in 1922.

	Number of trips.	Cod.		Haddock.		Hake.	
BY FISHING GROUNDS.							
East of 66° W. longitude.		*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Western Bank	94	5,541,716	$125,209	7,696,371	$129,285	9,925	$132
West of 66° W. longitude.							
Browns Bank	2	29,500	1,030	37,000	1,741	550	17
Georges Bank	217	3,919,720	103,883	12,110,375	276,132	56,810	1,109
South Channel	228	1,592,256	46,915	14,063,788	357,667	463,165	9,363
Nantucket Shoals	29	78,755	2,548	1,970,990	60,138	45,385	651
Shore, general	5					535	16
Total	578	11,161,947	279,585	35,878,524	824,963	576,370	11,288
BY MONTHS.							
January	40	317,010	19,886	1,930,595	102,799	8,040	468
February	48	567,060	19,996	2,924,730	72,534	8,605	246
March	61	1,543,970	32,418	4,081,650	67,639	22,705	879
April	33	830,130	17,124	2,720,420	63,405	8,990	122
May	48	1,072,251	22,103	3,958,915	74,243	33,870	759
June	55	941,745	20,057	3,293,738	57,174	121,060	2,368
July	46	1,211,141	25,025	2,973,795	47,679	63,820	1,102
August	52	1,256,395	22,084	3,238,995	50,605	47,745	965
September	43	1,184,720	23,722	2,583,371	40,681	44,755	731
October	41	842,700	23,125	2,693,235	75,292	44,220	839
November	54	650,650	21,972	2,762,515	81,113	113,580	1,168
December	57	744,175	32,093	2,716,565	91,799	58,980	1,641
Total	578	11,161,947	279,585	35,878,524	824,963	576,370	11,288

	Number of trips.	Pollock.		Cusk.		Halibut.	
BY FISHING GROUNDS.							
East of 66° W. longitude.		*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Western Bank	94	349,265	$6,550	3,285	$25	29,518	$5,021
West of 66° W. longitude.							
Browns Bank	2	2,935	23			213	44
Georges Bank	217	148,268	3,211			64,399	11,360
South Channel	228	384,595	8,471	500	5	61,659	11,639
Nantucket Shoals	29	32,364	847			2,024	382
Shore, general	5	1,750	79				
Total	578	919,177	19,181	3,785	30	157,813	28,446
BY MONTHS.							
January	40	17,424	786			5,306	1,839
February	48	57,850	1,704			13,680	3,062
March	61	117,795	3,044			27,800	5,742
April	33	46,385	1,150			9,858	1,401
May	48	36,045	819			16,187	2,470
June	55	38,358	490	3,285	25	26,326	3,710
July	46	28,785	593			8,833	1,252
August	52	55,560	954			6,004	741
September	43	93,585	1,173			9,108	1,082
October	41	30,555	717			13,591	2,025
November	54	101,640	1,767	500	5	15,256	3,339
December	57	295,195	5,984			5,864	1,783
Total	578	919,177	19,181	3,785	30	157,813	28,446

Fishery products landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in 1922—Continued.

	Number of trips.	Mackerel.		Miscellaneous.		Total.	
BY FISHING GROUNDS.							
East of 66° W. longitude.		*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Western Bank	94			20,551	$379	13,650,631	$266,601
Cape Shore	3	108,990	$12,776			108,990	12,776
West of 66° W. longitude.							
Browns Bank	2					70,198	2,855
Georges Bank	217			973,657	42,762	17,273,229	438,457
South Channel	228	245	74	864,558	33,817	17,430,766	467,951
Nantucket Shoals	29			107,837	5,159	2,237,355	69,725
Shore, general	5	11,725	352	19,425	675	33,435	1,122
Total	578	120,960	13,202	1,986,028	82,792	50,804,604	1,259,487
BY MONTHS.							
January	40			40,986	4,663	2,319,361	130,421
February	48			72,206	5,146	3,644,131	102,688
March	61	100	61	146,976	5,895	5,940,996	115,678
April	33			87,430	3,433	3,703,213	86,635
May	48	39,400	7,320	283,768	5,776	5,440,436	113,490
June	55	69,735	5,469	183,521	5,331	4,706,568	94,624
July	46	11,725	352	135,787	5,375	4,433,886	81,378
August	52			178,338	7,412	4,783,037	82,761
September	43			252,110	8,320	4,167,649	75,709
October	41			353,242	13,445	3,977,543	115,443
November	54			186,482	11,295	3,830,623	120,659
December	57			65,182	6,701	3,885,961	140,001
Total	578	120,960	13,202	1,986,028	82,792	50,804,604	1,259,487

Cod, haddock, and hake landed at Boston and Gloucester, Mass., and Portland, Me., by otter trawlers in various years, 1908 to 1922.

Year.	Trips.	Cod.	Haddock.	Hake.	Year.	Trips.	Cod.	Haddock.	Hake.
	No.	*Pounds.*	*Pounds.*	*Pounds.*		*No.*	*Pounds.*	*Pounds.*	*Pounds.*
1908	44	209,800	1,542,000	46,600	1913	326	1,667,806	12,488,992	209,485
1909	47	159,800	1,719,000	74,400	1914	387	1,149,595	15,383,550	259,913
1910	59	125,850	2,775,000	46,600	1920	646	6,311,389	51,962,457	
1911	178	564,500	7,367,100	151,700	1921	346	2,482,833	26,734,893	241,650
1912	295	1,952,950	12,966,700	105,500	1922	578	11,161,947	35,878,524	576,370

VESSEL LANDINGS OF COD, HADDOCK, AND HALIBUT.

The following tables give the catch of cod, haddock, and halibut landed at Boston and Gloucester, Mass., and Portland, Me., by fishing vessels in 1922, taken from each fishing bank each month by otter trawls and by all other forms of fishing apparatus. The landings include both fresh and salted fish, but the latter have been converted to the equivalent weights of fresh fish in the condition landed.

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks.

[Salt fish have been reduced to the basis of weights of fresh fish.]

JANUARY.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	1	20,525	$1,150	57,000	$1,729	1	954	$289
West of 66° W. longitude.								
Browns Bank	1	13,100	281	17,500	841			
Georges Bank	17	178,430	12,103	847,565	41,712	16	2,897	1,079
South Channel	19	102,030	6,195	909,130	53,679	13	1,438	466
Nantucket Shoals	2	2,925	137	99,400	4,838	1	17	5
Total	40	317,010	19,866	1,930,595	102,799	31	5,306	1,839
BY OTHER APPARATUS.								
East of 66° W. longitude.								
Western Bank	1	25,819	313					
Quereau Bank	1	17,800	834			1	23,747	3,909
West of 66° W. longitude.								
Browns Bank	41	659,926	30,498	1,481,325	77,704	35	5,385	1,931
Georges Bank	5	54,489	3,827	84,710	3,899	5	1,360	509
Middle Bank	1	3,740	213	2,890	210	1	10	1
Platts Bank	5	12,139	597	8,565	690	2	71	9
Jeffreys Ledge	41	147,475	7,822	228,125	16,936	21	1,703	366
South Channel	8	30,755	1,761	110,090	6,859	6	763	175
Off Chatham	6	16,605	990	67,510	4,893	5	733	214
Shore, general	248	196,982	10,155	69,572	5,626	19	704	120
Total	357	1,165,730	57,010	2,052,787	116,817	95	34,476	7,234
Grand total	397	1,482,740	76,876	3,983,382	219,616	126	39,782	9,073

FEBRUARY.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	2	40,000	$1,200	200,550	$6,017	1	2,000	$200
West of 66° W. longitude.								
Browns Bank	1	16,400	749	19,500	900	1	213	44
Georges Bank	39	474,625	16,760	2,480,715	58,951	37	9,676	2,411
South Channel	5	34,045	1,245	223,965	6,666	4	1,791	407
Nantucket Shoals	1	1,990	42					
Total	48	567,060	19,996	2,924,730	72,534	43	13,680	3,062
BY OTHER APPARATUS.								
East of 66° W. longitude.								
Western Bank	1	12,168	188					
Quereau Bank	6	30,277	1,397			3	117,191	19,500
Green Bank	2	8,477	128	105	1	1	31,988	4,500
St. Peters Bank						1	28,813	4,535
The Gully	3	44,433	1,154			1	17,068	2,411
West of 66° W. longitude.								
Browns Bank	29	550,065	18,938	1,090,365	37,532	23	3,755	1,002
Georges Bank	35	1,503,252	45,872	923,900	21,037	25	3,992	1,172
Middle Bank	14	34,120	1,415	137,115	5,620	4	407	53
Jeffreys Ledge	70	169,786	5,687	662,350	25,477	35	1,774	323
South Channel	18	60,294	2,403	420,125	15,885	9	1,409	283
Off Chatham	9	31,162	1,245	232,575	8,486	5	517	155
Shore, general	205	240,060	8,059	316,375	9,379	3	62	7
Total	392	2,684,094	86,486	3,782,910	123,417	110	206,976	33,941
Grand total	440	3,251,154	106,482	6,707,640	195,951	153	220,656	37,003

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

MARCH.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	14	873,050	$16,620	1,463,755	$29,234	5	699	$121
West of 66° W. longitude.								
Georges Bank	28	481,100	11,229	1,722,640	22,858	21	10,345	2,025
South Channel	13	189,655	4,564	893,990	15,522	14	16,657	3,581
Nantucket Shoals	1	165	5	1,265	25	1	99	15
Total	56	1,543,970	32,418	4,081,650	67,639	41	27,800	5,742
BY OTHER APPARATUS.								
East of 66° W. longitude.								
Western Bank	5	128,225	2,521	76,445	765	2	60,774	10,895
Quereau Bank	7	48,821	960	.....	.....	4	147,289	22,644
Green Bank	5	101,180	1,835	115	1	1	14,982	2,624
St. Peters Bank	2	23,407	430	.....	.....	3	115,440	15,167
The Gully	2	36,924	656	.....	.....	4	129,366	20,215
West of 66° W. longitude.								
Browns Bank	15	458,965	9,706	576,275	9,542	13	21,402	4,899
Georges Bank	121	3,523,591	77,962	2,215,050	27,979	29	43,138	7,783
Middle Bank	5	12,690	333	88,920	2,314	1	64	13
Platts Bank	2	1,785	42	12,490	293	1	15	2
Jeffreys Ledge	33	85,195	2,009	327,178	8,147	12	400	81
South Channel	25	174,692	4,000	651,730	11,471	14	1,916	410
Shore, general	460	467,690	13,533	1,706,425	42,699	8	2,082	375
Total	687	5,063,165	113,987	5,654,628	103,211	92	536,868	85,108
Grand total	743	6,607,135	146,405	9,736,278	170,850	133	564,668	90,850

APRIL.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	14	587,770	$12,010	1,590,605	$31,602	5	746	$77
West of 66° W. longitude.								
Georges Bank	10	173,855	3,779	650,265	17,816	9	6,055	818
South Channel	6	51,940	985	316,500	8,082	6	2,523	445
Nantucket Shoals	2	16,565	350	163,050	5,905	2	534	61
Total	32	830,130	17,124	2,720,420	63,405	22	9,858	1,401
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	3	88,320	1,939	35,700	759	4	52,940	6,928
Western Bank	4	123,446	2,325	46,553	940	3	1,196	215
Quereau Bank	2	14,080	263	.....	.....	7	198,670	24,105
Green Bank	4	47,551	830	.....	.....	.....	.....	.....
Grand Bank	.....	.....	.....	.....	.....	1	45,205	5,872
The Gully	3	20,029	355	.....	.....	1	17,167	2,419
West of 66° W. longitude.								
Browns Bank	49	1,809,795	42,976	997,025	28,686	32	61,227	6,411
Georges Bank	21	625,200	11,963	51,180	1,107	13	162,920	19,113
Fippenes Bank	1	10,800	247	1,045	84	1	138	26
Middle Bank	14	96,955	2,513	109,640	4,327	10	1,493	240
Platts Bank	8	30,155	600	16,305	419	3	185	21
Jeffreys Ledge	9	58,265	1,380	38,575	1,488	4	499	80
South Channel	16	185,322	4,867	374,815	15,690	15	2,040	324
Nantucket Shoals	1	490	19	.....	.....	1	10	1
Off Chatham	14	83,190	2,248	359,805	11,478	10	963	140
Shore, general	369	624,788	19,599	381,597	15,965	15	22,972	2,529
Total	518	3,818,386	92,084	2,412,240	80,943	120	567,625	68,424
Grand total	550	4,648,516	109,208	5,132,660	144,348	142	577,483	69,825

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

MAY.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	11	823,610	$16,018	1,240,745	$20,904	3	1,794	$283
West of 66° W. longitude.								
Georges Bank	4	81,340	1,681	301,900	3,921	2	1,368	258
South Channel	30	154,351	4,172	2,246,170	45,037	25	11,936	1,819
Nantucket Shoals	2	12,950	232	170,100	4,381	2	589	110
Total	47	1,072,251	22,103	3,958,915	74,243	32	16,187	2,470
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	2	59,810	1,263	11,060	111	1	455	90
Western Bank	10	270,432	4,842	161,745	1,599	3	103,196	14,573
Quereau Bank	8	180,715	3,256	.....	.....	6	188,840	23,525
Green Bank	1	6,096	112	.....	.....	1	20,420	2,101
Grand Bank	1	54,478	1,048	.....	.....	3	81,478	11,023
Cape Shore	1	20,893	331	16,400	298	1	819	136
The Gully	.....	.....	.....	.....	.....	2	78,325	7,734
West of 66° W. longitude.								
Browns Bank	38	768,047	16,721	1,043,920	20,563	29	65,811	11,399
Georges Bank	56	1,721,740	42,183	182,315	3,450	42	212,317	29,084
Cashes Bank	1	9,500	405	.....	.....	1	610	95
Middle Bank	3	22,730	558	10,435	494	3	872	127
Platts Bank	1	6,790	171	2,300	69	1	127	16
Jeffreys Ledge	3	20,646	437	5,148	152	3	221	38
South Channel	40	455,610	11,605	871,410	26,177	37	30,271	5,073
Nantucket Shoals	1	7,825	160	185	7	.....	.....	.....
Off Chatham	3	36,040	2,018	52,900	2,304	1	207	34
Shore, general	241	631,628	21,827	125,171	6,115	23	2,943	510
Total	410	4,272,980	106,937	2,482,989	61,339	157	786,812	105,558
Grand total	457	5,345,231	129,040	6,441,904	135,582	189	802,999	108,028

JUNE.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	12	539,680	$11,239	717,990	$8,288	6	15,775	$2,072
West of 66° W. longitude.								
Georges Bank	9	160,660	2,795	383,375	5,807	4	1,520	184
South Channel	32	241,405	6,023	2,192,373	43,079	23	9,031	1,454
Total	53	941,745	20,057	3,293,738	57,174	33	26,326	3,710
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	21	1,596,855	32,109	176,851	2,002	8	6,037	1,018
Western Bank	8	933,736	18,523	77,940	844	7	41,924	6,837
Quereau Bank	3	29,680	625	.....	.....	4	56,464	6,822
Green Bank	.....	.....	.....	.....	.....	2	88,211	11,275
Grand Bank	15	558,964	10,852	.....	.....	11	255,213	36,133
St. Peters Bank	1	37,172	660	.....	.....	1	35,787	5,387
Cape Shore	1	34,725	1,179	625	13	.....	.....	.....
St. Anns Bank	1	392,304	6,314	.....	.....	.....	.....	.....
West of 66° W. longitude.								
Browns Bank	9	418,410	10,302	204,673	3,364	9	7,786	1,409
Georges Bank	35	1,178,740	34,496	211,660	3,401	26	59,773	9,392
Platts Bank	3	4,000	129	1,772	113	3	623	103
Jeffreys Ledge	2	1,887	38	4,560	309	2	170	13
South Channel	40	531,485	16,800	885,810	29,927	33	5,490	947
Nantucket Shoals	6	56,400	1,536	440	8	1	178	18
Shore, general	189	516,908	40,729	55,773	2,701	12	2,448	361
Total	334	6,291,266	174,292	1,620,104	42,682	119	560,104	79,715
Grand total	387	7,233,011	194,349	4,913,842	99,856	152	586,430	83,425

Vessel landing of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

JULY.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	9	856,671	$17,471	810,110	$8,588	5	1,509	$165
West of 66° W. longitude.								
Georges Bank	19	285,750	5,529	893,040	11,286	8	4,942	643
South Channel	15	65,570	1,961	1,163,745	24,653	10	2,382	444
Nantucket Shoals	1	3,150	64	106,900	3,152	.....	.....	.....
Total	44	1,211,141	25,025	2,973,795	47,679	23	8,833	1,252
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	7	189,760	5,771	24,890	341	10	90,218	12,326
Western Bank	11	849,192	15,199	134,485	1,345	4	57,316	5,622
Quereau Bank	6	245,812	4,876	4,918	47	5	88,130	11,746
Grand Bank	16	1,129,430	21,381	.....	.....	14	512,330	51,211
West of 66° W. longitude.								
Browns Bank	24	970,683	26,333	147,420	3,250	16	19,231	2,778
Georges Bank	26	592,552	19,803	319,605	5,363	16	81,881	11,262
Platts Bank	2	2,385	67	3,630	161	1	279	29
Jeffreys Ledge	2	1,080	37	3,390	232	2	27	5
South Channel	58	761,484	25,324	1,335,464	40,072	46	9,192	1,366
Shore, general	162	376,880	16,080	51,351	2,422	16	807	88
Total	314	5,119,258	134,871	2,025,153	53,233	130	859,411	96,433
Grand total	358	6,330,399	159,896	4,998,948	100,912	153	868,244	97,685

AUGUST.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	5	642,700	$10,859	243,285	$2,433	1	375	$71
West of 66° W. longitude.								
Georges Bank	23	544,010	9,336	1,204,600	17,058	11	3,179	359
South Channel	18	55,775	1,594	1,334,435	23,969	11	1,995	246
Nantucket Shoals	5	13,910	295	456,675	7,145	5	455	65
Total	51	1,256,395	22,084	3,238,995	50,605	28	6,004	741
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	6	237,315	4,461	67,070	517	2	3,004	375
Western Bank	14	1,920,914	37,164	76,043	834	7	41,700	3,716
Quereau Bank	.....	.....	.....	.....	.....	4	128,154	17,662
Grand Bank	21	456,421	9,581	.....	.....	14	480,300	55,094
St. Peters Bank	1	464,231	8,821	.....	.....	1	3,640	91
Cape Shore	1	48,715	1,726	2,300	12	.....	.....	.....
West of 66° W. longitude.								
Browns Bank	31	1,245,688	38,806	80,670	1,148	20	23,570	3,080
Georges Bank	40	1,296,355	32,558	449,725	6,044	21	119,520	14,891
Platts Bank	5	6,157	215	10,556	471	5	309	23
South Channel	56	932,583	34,551	1,622,725	40,365	48	14,797	2,290
Off Chatham	1	21,540	979	41,650	778	1	64	8
Shore, general	137	260,091	11,919	23,818	887	10	1,145	129
Total	313	6,890,010	180,781	2,374,557	51,056	133	816,203	97,359
Grand total	364	8,146,405	202,865	5,613,552	101,661	161	822,207	98,100

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

SEPTEMBER.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	3	301,070	$5,444	478,161	$5,103	1	320	$16
West of 66° W. longitude.								
Georges Bank	20	572,635	11,219	936,045	14,301	9	5,190	611
South Channel	20	311,015	7,059	1,169,165	21,277	18	3,598	461
Total	43	1,184,720	23,722	2,583,371	40,681	28	9,108	1,082
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	2	43,150	1,792	19,000	490	2	1,268	234
Western Bank	7	1,283,400	27,168	35,461	396	4	40,044	6,374
Quereau Bank	7	209,136	4,498	.....	.....	4	87,697	12,855
Green Bank	6	107,020	2,277	.....	.....	5	124,901	16,821
Grand Bank	7	81,816	1,781	639	8	9	239,056	34,282
Cape Shore	1	44,164	1,050	.....	.....	.....	.....	.....
West of 66° W. longitude.								
Browns Bank	3	143,744	5,966	43,135	1,144	3	2,960	561
Georges Bank	71	2,106,535	51,141	868,935	11,283	34	106,057	16,838
Platts Bank	3	5,303	181	5,735	297	1	45	2
Jeffreys Ledge	7	12,847	395	16,280	861	1	300	32
South Channel	67	656,854	20,694	2,726,065	53,400	50	23,575	3,924
Nantucket Shoals	1	12,810	388	500	8	1	53	14
Shore, general	98	155,207	6,579	12,947	546	5	253	32
Total	280	4,861,986	123,910	3,728,697	63,433	119	626,209	91,969
Grand total	323	6,046,706	147,632	6,312,068	109,114	147	635,317	93,051

OCTOBER.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	2	65,555	$989	159,520	$1,595	.....	.....	.....
West of 66° W. longitude								
Georges Bank	29	671,790	19,231	1,853,295	50,789	25	11,569	$1,657
South Channel	10	105,355	2,905	680,420	22,908	8	2,022	368
Total	41	842,700	23,125	2,693,235	75,292	33	13,591	2,025
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	3	183,264	3,874	.....	.....	3	28,082	5,510
Western Bank	5	513,253	10,207	125,529	1,256	3	25,377	4,507
Quereau Bank	2	210,105	4,483	.....	.....	2	30,203	5,352
Green Bank	9	82,904	1,925	.....	.....	9	216,818	34,877
Grand Bank	1	9,500	175	.....	.....	2	35,217	5,182
St. Peters Bank	2	303,956	6,252	1,143	11	1	8,649	1,914
Cape Shore	2	53,670	1,402	2,400	120	1	50	18
West of 66° W. longitude.								
Browns Bank	17	446,723	15,969	168,325	4,555	12	25,166	4,515
Georges Bank	45	1,289,768	40,002	720,000	10,192	30	24,834	5,000
Fippenies Bank	3	14,615	538	5,940	355	1	671	105
Middle Bank	1	3,680	151	9,575	284	1	135	27
Platts Bank	12	44,485	2,016	19,160	906	8	1,622	227
Jeffreys Ledge	16	63,430	3,390	62,058	2,608	12	1,959	319
South Channel	58	467,305	18,758	1,832,225	59,038	45	16,052	3,174
Nantucket Shoals	1	17,200	1,352	.....	.....	.....	.....	.....
Shore, general	213	622,478	19,695	28,183	1,222	8	396	74
Total	390	4,326,336	130,189	2,974,538	80,547	138	415,231	70,801
Grand total	431	5,169,036	153,314	5,667,773	155,839	171	428,822	72,826

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

NOVEMBER.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	4	199,650	$8,383	176,000	$3,631	3	1,545	$611
West of 66° W. longitude.								
Georges Bank	11	246,100	7,098	370,025	12,035	11	6,839	1,195
South Channel	29	187,360	5,560	1,488,540	38,804	24	6,585	1,427
Nantucket Shoals	10	17,540	931	727,950	26,643	4	287	106
Total	54	650,650	21,972	2,762,515	81,113	42	15,256	3,339
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	2	33,100	793	33,800	772	2	241	85
Western Bank	11	220,741	5,217	138,285	2,380	4	3,116	799
Green Bank	1	13,600	680			1	1,468	338
Cape Shore	2	55,970	1,052	3,740	54			
West of 66° W. longitude.								
Browns Bank	18	281,040	8,166	251,365	6,881	13	6,727	2,058
Georges Bank	22	436,001	17,713	413,560	10,859	19	10,611	2,302
Fippenies Bank	1	2,890	105	7,770	348	1	81	10
Middle Bank	2	7,840	222	18,200	591	1	61	15
Platts Bank	12	54,225	1,760	17,000	923	3	286	38
Jeffreys Ledge	61	211,863	8,922	216,203	10,821	36	2,762	419
South Channel	72	461,433	21,993	1,617,710	65,731	45	8,596	2,128
Nantucket Shoals	3	41,475	1,226	69,275	2,635			
Off Highland Light	1	1,975	75	4,050	162	1	90	23
Seal Island	1	11,300	379	26,400	792	1	30	3
Shore, general	205	810,992	24,372	42,583	2,553	11	683	105
Total	414	2,644,445	92,675	2,859,941	105,502	138	34,752	8,323
Grand total	468	3,295,095	114,647	5,622,456	186,615	180	50,008	11,662

DECEMBER.

BY OTTER TRAWLS.								
East of 66° W. longitude.								
Western Bank	16	591,435	$23,826	558,650	$10,161	16	3,801	$1,122
West of 66° W. longitude.								
Georges Bank	8	49,425	3,123	466,910	19,598	6	319	120
South Channel	29	93,755	4,652	1,445,355	53,991	21	1,701	521
Nantucket Shoals	4	9,560	492	245,650	8,049	1	43	20
Total	57	744,175	32,093	2,716,565	91,799	44	5,864	1,783
BY OTHER APPARATUS.								
East of 66° W. longitude.								
Western Bank	3	41,700	1,416	75,125	2,529	2	2,261	750
Quereau Bank	1	32,594	913			1	10,123	3,158
Cape Shore	2	27,022	1,158	68,500	2,055	1	1,810	453
West of 66° W. longitude.								
Browns Bank	48	753,475	31,900	1,692,180	58,238	43	16,669	5,079
Georges Bank	5	56,870	2,441	115,380	3,365	5	1,783	351
Middle Bank	5	17,090	1,162	32,765	1,905			
Platts Bank	7	23,030	1,368	10,250	822	1	52	9
Jeffreys Ledge	54	145,310	7,947	224,950	13,877	27	1,955	461
South Channel	9	36,595	1,611	134,860	5,862	7	1,424	274
Nantucket Shoals	1	7,980	704					
Off Chatham	2	4,605	246	18,120	1,061	1	365	67
Shore, general	186	313,837	11,606	116,069	7,543	11	933	144
Total	323	1,460,108	62,472	2,488,199	97,257	99	37,375	10,746
Grand total	380	2,204,283	94,565	5,204,764	189,056	143	43,239	12,529

Vessel landings of cod, haddock, and halibut at Boston and Gloucester, Mass., and Portland, Me., for each month of 1922, shown by apparatus and fishing banks—Continued.

GRAND TOTAL.

	Trips.	Cod.		Haddock.		Trips.	Halibut.	
BY OTTER TRAWLS.								
East of 66° W. longitude.	*Number.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Western Bank	93	5,541,716	$125,209	7,696,371	$129,285	47	29,518	$5,021
West of 66° W. longitude.								
Browns Bank	2	29,500	1,030	37,000	1,741	1	213	44
Georges Bank	217	3,919,720	103,883	12,110,375	276,132	159	64,399	11,360
South Channel	226	1,592,256	46,915	14,063,788	357,667	177	61,359	11,639
Nantucket Shoals	28	78,755	2,548	1,970,990	60,138	16	2,024	382
Total	566	11,161,947	279,585	35,878,524	824,963	400	157,813	28,446
BY OTHER APPARATUS.								
East of 66° W. longitude.								
La Have Bank	46	2,431,574	52,002	368,371	4,992	32	182,245	26,566
Western Bank	80	6,323,026	125,083	947,611	12,888	39	376,804	54,288
Quereau Bank	43	1,019,020	22,105	4,918	47	41	1,076,508	151,278
Green Bank	28	366,828	7,787	220	2	20	498,788	72,536
Grand Bank	61	2,290,609	44,818	639	8	54	1,648,799	198,797
St. Peters Bank	6	828,766	16,163	1,143	11	7	192,329	27,094
Cape Shore	10	285,159	7,898	93,965	2,552	3	2,679	607
St. Annes Bank	1	392,304	6,314					
The Gully	8	101,386	2,165			8	241,926	32,779
West of 66° W. longitude.								
Browns Bank	322	8,506,561	256,281	7,776,678	252,607	248	259,689	45,122
Georges Bank	482	14,385,093	379,961	6,556,020	107,979	265	828,186	117,697
Cashes	1	9,500	405			1	610	95
Fippenies Bank	5	28,305	890	14,755	787	3	890	141
Middle Bank	45	198,845	6,567	409,540	15,745	21	3,042	476
Platts Bank	60	190,454	7,146	107,763	5,164	29	3,614	479
Jeffreys Ledge	303	917,784	38,064	1,788,817	80,908	155	11,770	2,137
South Channel	467	4,754,412	164,367	12,583,029	370,477	355	115,525	20,368
Nantucket Shoals	14	144,180	5,385	70,400	2,658	3	241	33
Off Highland Light	1	1,975	75	4,050	162	1	90	23
Off Chatham	35	193,142	7,726	772,560	29,000	23	2,849	618
Seal Island	1	11,300	379	26,400	792	1	30	3
Shore, general	2,713	5,217,541	204,113	2,929,864	97,658	141	35,428	4,474
Total	4,732	48,597,764	1,355,694	34,456,743	984,437	1,450	5,482,042	755,611
Grand total	5,298	59,759,711	1,635,279	70,335,267	1,809,400	1,850	5,639,855	784,057

VESSEL FISHERIES AT SEATTLE, WASH.

In the vessel fisheries at Seattle, Wash., there was a decrease, as compared with 1921, in the total quantity and value of products landed by the fishing fleet, and an increase in the total quantity and value of products landed by collecting vessels, the increase being due chiefly to an increase in the landings of salmon. Statistics of the vessel fisheries at Seattle have been collected by the local agent and published as monthly and annual statistical bulletins, giving the quantity and value of fishery products landed by American fishing and collecting vessels at that port.

In 1922 the fishing fleet at Seattle landed 836 trips, amounting to 11,332,050 pounds of fish, having a value to the fishermen of $1,249,822. This catch was taken from fishing grounds along the coast from Oregon to Portlock Bank, Alaska. The fishing areas from which the largest quantities of fish were taken were Flattery Banks, west coast of Vancouver Island, and Hecate Strait. The products included

halibut, 9,938,150 pounds, valued at $1,196,390; sablefish, 1,014,100 pounds, valued at $46,652; "lingcod," 258,200 pounds, valued at $4,509; and rockfishes, 121,600 pounds, valued at $2,271. Compared with 1921 there was a decrease of 30 trips by fishing vessels, and of 2,334,650 pounds, or 17.08 per cent, in the quantity and of $173,481, or 12.18 per cent, in the value of the products landed. There was a decrease in the catch of halibut of 1,542,850 pounds, or 13.43 per cent, in quantity and of $139,268, or 10.42 per cent, in value. The catch of sablefish decreased 505,300 pounds, or 33.25 per cent, in quantity and $17,033, or 26.74 per cent, in value. The catch of "lingcod" decreased 205,100 pounds, or 44.27 per cent, in quantity and $11,882, or 72.49 per cent, in value; and the catch of rockfishes decreased 81,400 pounds, or 40.09 per cent, in quantity and $5,298, or 69.99 per cent, in value.

The fishery products taken in Puget Sound and landed at Seattle by collecting vessels during the year amounted to 15,083,390 pounds, valued at $964,832. The products included salmon, 13,615,780 pounds, valued at $882,481; herring, 261,890 pounds, valued at $3,158; sturgeon, 1,100 pounds, valued at $130; steelhead trout, 122,820 pounds, valued at $12,542; smelt, 192,350 pounds, valued at $16,795; perch, 30,800 pounds, valued at $2,114; rockfishes, 115,490 pounds, valued at $6,720; "lingcod," 8,000 pounds, valued at $160; flounders, 94,100 pounds, valued at $1,683; sole, 163,500 pounds, valued at $5,679; and crabs, 477,560 pounds, valued at $33,370. Compared with 1921 there was an increase in the products landed by collecting vessels of 2,654,865 pounds, or 21.36 per cent, in quantity and of $185,954, or 23.87 per cent, in value.

Statement, by fishing grounds and months, of quantities and values of certain fresh fishery products landed at Seattle, Wash., by American fishing vessels, 1922.

	Number of trips.	Halibut.		Sablefish.	
BY FISHING GROUNDS.		*Pounds.*	*Value.*	*Pounds.*	*Value.*
Oregon Coast	2	12,000	$2,430	3,500	$195
Flattery Banks	342	2,455,500	326,059	805,400	37,962
West Coast, Vancouver Island	195	1,849,500	226,752	99,000	4,635
Queen Charlotte Islands grounds	38	512,000	67,061	10,500	450
Hecate Strait	237	4,385,150	500,507	93,200	3,285
Noyes Island grounds	5	74,000	7,120	.....	.....
Forrester Island grounds	2	36,000	2,981	.....	.....
Coronation Island	2	43,000	4,350	.....	.....
Yakutat grounds	10	420,000	47,950	2,500	125
Portlock Bank	3	151,000	11,180	.....	.....
Total	836	9,938,150	1,196,390	1,014,100	46,652
BY MONTHS.					
January	20	493,500	50,720	22,000	740
February	34	379,000	50,190	18,000	700
March	53	543,200	72,059	7,000	340
April	94	844,500	101,153	.....	.....
May	118	1,252,300	141,967	7,500	375
June	113	1,720,500	162,373	20,000	940
July	88	1,423,000	149,834	69,700	2,481
August	80	940,200	113,681	234,000	8,270
September	80	947,600	127,321	128,200	6,721
October	86	853,000	137,841	291,200	13,815
November	51	345,600	59,121	155,000	8,855
December	19	195,750	30,130	61,500	3,415
Total	836	9,938,150	1,196,390	1,014,100	46,652

Statement, by fishing grounds and months, of quantities and values of certain fresh fishery products landed at Seattle, Wash., by American fishing vessels, 1922—Continued.

	Number of trips.	"Lingcod."		Rockfishes.		Total.	
BY FISHING GROUNDS.		*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Oregon Coast	2	.....	.....	.....	.....	15,500	$2,625
Flattery Banks	342	122,900	$1,961	42,800	$787	3,426,600	366,769
West Coast, Vancouver Island	195	80,800	1,508	67,800	689	2,067,100	233,584
Queen Charlotte Islands grounds	38	25,500	470	6,500	130	554,500	68,111
Hecate Strait	237	21,000	410	29,500	565	4,528,850	504,767
Noyes Island grounds	5	8,000	160	4,000	80	86,000	7,360
Forrester Island grounds	2	.....	.....	1,000	20	37,000	3,001
Coronation Island	2	.....	.....	.....	.....	43,000	4,350
Yakutat grounds	10	.....	.....	.....	.....	422,500	48,075
Portlock Bank	3	.....	.....	.....	.....	151,000	11,180
Total	836	258,200	4,509	121,600	2,271	11,332,050	1,249,822
BY MONTHS.							
January	20	11,000	220	4,000	80	530,500	51,760
February	34	27,000	600	11,500	230	435,500	51,720
March	53	33,500	560	8,500	150	592,200	73,109
April	94	60,900	709	17,000	200	922,400	102,062
May	118	17,500	175	7,200	72	1,284,500	142,589
June	113	43,000	750	27,500	530	1,811,000	164,593
July	88	34,300	603	30,000	535	1,557,000	153,453
August	80	3,600	116	3,600	190	1,181,400	122,257
September	80	4,700	47	2,000	20	1,082,500	134,109
October	86	9,700	409	1,500	30	1,155,400	152,095
November	51	9,500	240	8,300	224	518,400	68,440
December	19	3,500	80	500	10	261,250	33,635
Total	836	258,200	4,509	121,600	2,271	11,332,050	1,249,822

Fishery products, by months, taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, 1922.

Species.	January.		February.		March.		April.		May.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Sturgeon	.....	.....	.....	.....	.....	.....	.....	.....	1,100	$130
Herring	90,000	$1,450	108,400	$1,084	23,490	$234	.....	.....	.....	.....
Salmon:										
King or spring	.....	.....	.....	.....	.....	.....	.....	.....	370,000	35,400
Sockeye or red	.....	.....	.....	.....	.....	.....	.....	.....	6,000	720
Trout: Steelhead	.....	.....	.....	.....	.....	.....	.....	.....	30,600	3,320
Smelt	22,500	2,500	6,600	924	14,840	1,484	9,640	$904	.....	.....
Perch	.....	.....	8,200	502	6,000	360	8,600	602	.....	.....
Rockfishes	7,000	490	10,250	820	8,500	510	14,500	1,015	2,000	160
Flounders	5,850	117	4,000	60	3,600	54	6,450	139	16,500	165
Sole	21,500	645	24,600	575	20,100	603	16,300	470	8,500	255
Crabs	83,600	5,700	78,100	5,325	39,600	2,700	27,500	1,825	21,120	1,440
Total	230,450	10,902	240,150	9,290	116,130	5,945	82,990	5,015	455,820	41,590

Species.	June.		July.		August.		September.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Salmon:								
Humpback or pink	.....	.....	52,000	$1,040	150,000	$4,500	28,000	$840
Chum or keta	.....	.....	33,600	672	116,000	3,480	83,080	2,077
King or spring	660,000	$66,000	2,350,000	235,000	1,557,200	155,720	307,200	30,720
Coho or silver	47,000	4,700	118,400	5,620	2,254,300	141,258	1,813,200	90,660
Sockeye or red	26,000	2,600	20,000	1,000	.....	.....	.....	.....
Trout: Steelhead	34,500	3,450	24,500	2,450	16,500	1,650	.....	.....
Smelt	.....	.....	.....	.....	.....	.....	37,400	2,976
Rockfishes	12,000	240	16,200	324	5,600	448	8,500	680
Flounders	14,300	280	12,000	240	10,000	200	6,600	132
Sole	8,000	320	11,000	440	16,400	1,312	7,000	280
Total	801,800	77,590	2,637,700	246,786	4,126,000	308,568	2,290,980	128,365

Fishery products, by months, taken in Puget Sound and landed at Seattle, Wash., by collecting vessels, 1922—Continued.

Species.	October.		November.		December.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Sturgeon							1,100	$130
Herring					40,000	$390	261,890	3,158
Salmon:								
Humpback or pink	12,000	$240					242,000	6,620
Chum or keta	1,400,000	25,000	464,000	$18,560			2,096,680	49,789
King or spring	108,500	10,850	14,500	1,160			5,367,400	534,850
Coho or silver	1,320,600	26,412	304,200	18,252			5,857,700	286,902
Sockeye or red							52,000	4,320
Trout: Steelhead	10,450	1,045	6,270	627			122,820	12,542
Smelt	32,300	2,740	14,070	1,407	55,000	3,800	192,350	16,795
Perch					8,000	650	30,800	2,114
Rockfishes	10,140	800	8,300	498	12,500	735	115,490	6,720
"Lingcod"	8,000	160					8,000	160
Flounders			6,800	136	8,000	160	94,100	1,683
Sole	7,600	304	4,000	120	18,500	355	163,500	5,679
Crabs	63,800	4,350	70,840	4,830	93,000	7,200	[1] 477,560	33,370
Total	2,973,390	71,901	892,980	45,590	235,000	13,290	15,083,390	964,832

[1] 21,590 dozen.

FISHERIES OF CALIFORNIA IN 1922.

Through the courtesy of the California Fish and Game Commission the bureau has received copies of its monthly sheets showing the catch of fish, by species and by counties, for California, and also the quantity of fish imported into California from Mexico, during the calendar year 1922. These statistics have been compiled by species and by months, as shown in the appended tables.

In 1922 the catch of fish for California amounted to 168,969,733 pounds, an increase of 41,241,110 pounds, or 32.28 per cent over the catch of 1921. The species taken in largest quantities were pilchard, 93,399,900 pounds; albacore and tuna, 17,920,019 pounds; flounders, 11,341,262 pounds; bonito or skipjack, 10,998,855 pounds; salmon, 7,235,124 pounds; barracuda, 4,710,753 pounds; rockfishes, 4,238,480 pounds; yellowtail, 3,111,198 pounds; mackerel, 2,466,762 pounds; white sea bass or squeteague, 2,195,932 pounds; abalones, 1,523,394 pounds; and shad, 1,109,445 pounds.

The imports of fresh fish from Mexico in 1922 amounted to 12,146,066 pounds, an increase of 5,446,249 pounds, or 81.29 per cent, as compared with 1921. The principal species imported were albacore and tuna, 6,179,754 pounds; barracuda, 1,528,770 pounds; bonito or skipjack, 1,792,592 pounds; flounders, 817,304 pounds; white sea bass or squeteague, 736,220 pounds; sea crawfish or spiny lobster, 640,466 pounds; and yellowtail, 303,292 pounds.

Products, in pounds, of the fisheries of California, 1922.

Species.	January.	February.	March.	April.	May.	June.	July.
Albacore and tuna	695	1,440	296		149	875,364	9,386,822
Anchovies	32,613	27,633		7,375	96,717	27,511	37,470
Barracuda	25,220	115,880	554,140	527,589	1,213,656	634,650	369,462
Bluefish, California or squeteague	3,352	3,422	17,806	1,440	925	1,735	5,677
Bonito or skipjack	17,947	2,853	9,591	4,190	695	5,580	31,471
Carp	2,851	5,835	10,776	3,367	16,723	4,140	3,894
Catfish	18,374	14,547	28,648	7,114	8,206		
Flounders	988,803	1,022,552	1,174,570	879,955	867,028	1,253,309	838,590
"Hake"	345	870	260	4,424	3,600	13,998	7,537
Hardhead	5,644	3,160	14,685				

Products, in pounds, of the fisheries of California, 1922—Continued.

Species.	January.	February.	March.	April.	May.	June.	July.
Herring	126,788	98,592	44,085				
Kingfish	30,323	52,722	127,350	109,600	81,419	36,250	27,861
"Lingcod"	45,530	39,314	47,565	32,826	40,217	35,075	52,327
Mackerel	175,667	120,150	241,695	273,872	228,454	233,197	245,445
Mullet			1,027		4,250	761	899
"Perches," surf	17,995	19,950	38,723	52,875	6,296	4,013	15,577
Pike, Sacramento	1,245	1,038	198	190	611	298	149
Pilchard	6,830,874	20,949,556	14,420,451	2,184,939	491,487	58,215	1,487,755
Pompano, California	210	150	2,100	1,396	2,053	2,658	1,541
Rockfishes	584,065	566,356	602,278	326,968	282,612	200,746	160,162
Sablefish	12,502	24,344	61,393	34,213	8,294	40,677	31,715
Salmon	11,786	29,248	108,341	501,938	560,469	1,725,650	1,469,933
Sculpin	5,458	4,940	3,914	2,619	8,464	500	
Sea bass, black	8,518	4,520	2,158	3,009	5,152	13,301	9,222
Sea basses, or "rock bass"	9,394	6,383	6,410	7,968	34,734	58,349	74,263
Sea bass, white or squeteague	26,139	11,305	188,160	191,496	321,209	475,425	324,465
Shad	991	186	52,009	348,261	675,248	11,080	
Sharks	52,620	31,617	36,315	15,380	43,055	23,545	14,413
Sheepshead	2,249	3,150	880	42	643		60
Skates	14,661	15,920	18,069	20,230	6,650	2,370	6,063
"Smelt"	30,388	47,749	74,130	64,998	77,103	44,326	65,100
Split-tail	2,056	6,047	279	102	87		
Striped bass	69,162	37,115	17,629	114,193	142,959	1,285	
Suckers	710	394					
Swordfish		105		80		300	1,524
Tomcod	4,829	2,975	1,034	450	2,659	2,008	564
Whitebait	386			485	6,315	39,081	11,031
Whitefish	2,641	2,259	4,187	2,615	9,319	187	25
Yellowtail	12,329	2,633	133,730	65,930	207,289	162,614	243,893
Other fish	16,353	44,392	16,037	5,828	16,142	21,086	13,706
Crabs	116,512	147,180	46,420	84,722	101,288	41,492	27,940
Shrimps	51,213	38,311	71,031	141,406	124,252	128,020	62,210
Sea crawfish or spiny lobster	66,074	51,335					
Abalones	79,043		120,907	83,770	162,052	203,535	243,308
Clams	48,233	44,411	54,027	46,125	53,647	48,776	53,898
Cockles	1,445	863	2,562	3,490	6,024	4,496	2,104
Mussels	2,679	2,546	1,814	2,559	4,576	8,381	8,812
Oysters, eastern	5,547	6,453	7,346	4,738	2,498	2,435	2,077
Octopus	5,547	10,296	15,452	8,943	12,805	14,288	9,701
Squid	471	15,743	11,784	3,188	64,169	74,098	130
Turtles				10			
Frogs	540			100			
Total	9,569,017	23,638,470	18,392,562	6,177,008	6,002,200	6,534,805	15,348,796

Species.	August.	September	October.	November.	December.	Total.
Albacore and tuna	4,711,620	1,965,151	772,025	168,607	37,850	17,920,019
Anchovies	31,353	19,275	21,919	56,950		358,816
Barracuda	322,480	140,457	339,118	378,585	89,516	4,710,753
Bluefish, California or squeteague	5,118	5,073	3,849	2,160	9,474	60,031
Bonito or skipjack	2,741,407	6,216,812	1,910,044	46,947	11,318	10,998,855
Carp	9,573	171	1,065	3,261	5,257	66,913
Catfish	677	2,804	15,836	19,244	10,229	125,679
Eels		20				20
Flounders	971,155	863,697	938,136	864,202	679,265	11,341,262
"Hake"	9,077	8,045	21,860	4,050	450	74,516
Hardhead			1,316	5,848	1,490	32,143
Herring				295	57,911	327,671
Kingfish	7,708	6,852	17,003	37,972	46,638	581,698
"Lingcod"	69,979	63,406	68,509	48,039	25,694	568,481
Mackerel	127,592	172,353	179,854	215,886	252,597	2,466,762
Mullet	1,023	641		5,095	10,668	24,364
"Perches," surf	16,976	8,302	16,960	25,131	14,841	237,639
Pike, Sacramento	305	131	34	364	2,876	7,439
Pilchard	6,637,365	7,838,542	10,200,583	9,295,815	13,004,318	93,399,900
Pompano, California	961	1,509	1,682	1,121	669	16,050
Rockfishes	293,219	195,592	278,012	375,381	373,089	4,238,480
Sablefish	11,158	1,408	5,594	15,358	21,598	268,554
Salmon	1,706,929	865,816	102,931	111,786	40,297	7,235,124
Sculpin	110	1,189	1,676	8,955	4,105	41,930
Sea bass, black	11,716	3,751	5,309	9,943	7,093	83,692
Sea basses or "rock bass"	67,065	26,813	4,897	9,544	5,542	311,362
Sea bass, white or squeteague	368,348	177,958	57,022	32,222	22,183	2,195,932
Shad	13,247	829	3	5,567	2,024	1,109,445
Sharks	9,093	8,562	13,350	13,225	20,813	282,018
Sheepshead	118	30		1,374	9,637	18,183
Skates	3,851	1,654	10,535	8,362	12,845	121,210
"Smelt"	43,136	84,130	124,286	96,573	71,009	822,928

Products, in pounds, of the fisheries of California, 1922—Continued.

Species.	August.	September.	October.	November.	December.	Total.
Split-tail	206	812	.....	16	803	10,408
Steelhead trout	.....	2,345	.....	145	.....	2,490
Striped bass	90,590	52,279	.....	64,049	94,937	684,198
Suckers	.....	.....	.....	14	234	1,352
Swordfish	8,190	11,921	328	485	323	23,256
Tomcod	11,911	5,332	319	.....	33	32,114
Whitebait	12,390	7,365	4,451	2,503	.....	84,007
Whitefish	.....	2,308	375	2,028	1,845	27,789
Yellowtail	424,997	637,364	757,430	418,850	44,139	3,111,198
Other fish	10,620	8,405	27,010	52,803	18,836	251,218
Crabs	.....	.....	.....	102,806	120,274	788,634
Shrimps	74,659	112,602	88,935	58,607	39,103	990,349
Sea crawfish or spiny lobster	.....	.....	65,420	99,651	93,830	376,310
Abalones	214,277	202,731	63,371	84,739	65,661	1,523,394
Clams	50,616	48,896	42,655	41,427	39,108	571,819
Cockles	1,269	1,631	1,484	3,223	2,973	31,564
Mussels	5,218	4,114	463	2,060	650	43,872
Oysters, eastern	3,578	4,964	6,394	6,557	6,534	59,121
Octopus	2,891	1,956	3,270	6,605	6,834	98,588
Squid	.....	.....	70	219	39,661	209,533
Turtles	.....	.....	.....	.....	.....	10
Frogs	.....	.....	.....	.....	.....	640
Total	19,103,771	19,785,998	16,175,383	12,814,649	15,427,074	168,969,733

Mexican fishery products, in pounds, imported into California, 1922.

Species.	January.	February.	March.	April.	May.	June.	July.
Albacore and tuna	1,991	.....	.....	73,811	159,409	.....	.....
Barracuda	320,614	224,424	235,027	16,519	2,824	.....	550
Bonito or skipjack	21,145	1,876	895	1,675	.....	.....	.....
Flounders	48,411	39,668	16,287	16,948	37,680	72,337	97,646
Kingfish	.....	.....	30	.....	.....	65	.....
Mackerel	15,162	4,565	788	.....	165	.....	630
Mullet	442	.....	585	.....	.....	.....	.....
Rockfishes	18,327	1,765	599	.....	.....	305	135
Sculpin	.....	90	91	.....	.....	.....	.....
Sea bass, black	3,903	2,390	.....	.....	.....	90	480
Sea basses or "rock bass"	447	650	799	.....	.....	.....	20
Sea bass, white or squeteague	40,693	312	15,250	17,952	1,400	1,697	49,615
Smelt	1,349	305	.....	.....	.....	123	666
Whitefish	2,256	.....	235	.....	.....	.....	.....
Yellowtail	130,501	54,706	83,885	3,866	.....	.....	8,135
Other fish	328	105	.....	.....	.....	.....	.....
Sea crawfish or spiny lobster	109,561	115,332	195,524	46,363	.....	.....	.....
Abalones	.....	.....	6,265	7,575	21,085	2,115	.....
Turtles	110	.....	.....	5,255	.....	.....	.....
Total	715,240	446,188	556,260	189,964	222,563	76,732	157,877

Species.	August.	September.	October.	November.	December.	Total.
Albacore and tuna	.....	832,033	2,417,017	1,961,417	734,076	6,179,754
Barracuda	40	203,398	126,669	189,636	209,069	1,528,770
Bonito or skipjack	160	1,144	307,325	1,184,091	274,281	1,792,592
Flounders	162,374	290,415	25,981	5,060	4,497	817,304
Kingfish	.....	70	.....	.....	.....	165
Mackerel	.....	7,208	220	355	73	29,166
Mullet	.....	.....	.....	.....	5,555	6,582
"Perches," surf	70	75	250	2,255	3,492	6,142
Pompano, California	.....	.....	.....	260	112	372
Rockfishes	30	1,265	1,607	165	.....	24,198
Sculpin	.....	.....	.....	.....	.....	181
Sea bass, black	.....	1,200	170	.....	5,429	13,662
Sea basses or "rock bass"	.....	1,404	.....	215	1,154	4,689
Sea bass, white or squeteague	116,401	209,841	258,824	5,954	18,281	736,220
Sheepshead	.....	.....	22	.....	.....	22
Smelt	738	542	1,506	70	1,913	7,212
Whitefish	.....	.....	.....	.....	.....	2,491
Yellowtail	1,630	10,488	3,159	1,095	5,827	303,292
Other fish	.....	400	.....	.....	2,167	3,000
Sea crawfish or spiny lobster	.....	.....	16,233	85,628	71,825	640,466
Abalones	.....	.....	.....	.....	.....	37,040
Clams	.....	.....	.....	.....	225	225
Turtles	.....	135	555	3,407	3,059	12,521
Total	281,443	1,559,618	3,159,538	3,439,608	1,341,035	12,146,066

FISHERY PRODUCTS RECEIVED AT MUNICIPAL FISH WHARF AND MARKET, WASHINGTON, D. C.[5]

The receipts of fishery products at the Municipal Fish Wharf and Market, Washington, D. C., in 1922 amounted to 6,442,663 pounds, a decrease of 2,624,081 pounds, or 28.94 per cent, as compared with 1921. The five most important products in quantity were squeteagues or "sea trout," 1,138,730 pounds; oysters, 1,744,918 pounds, or 249,274 bushels; croaker, 779,776 pounds; river herring, 559,070 pounds; and shad, 438,148 pounds; total of 4,660,642 pounds, or 72.34 per cent, of the receipts at this market. The species ranking next in abundance include bass, butterfish, catfish, halibut, perch, striped bass, and crabs.

Fishery products, in pounds, received at Municipal Fish Wharf and Market, Washington, D. C., 1922.

Species.	January.	February.	March.	April.	May.	June.	July.
Bass, black or sea	29,500	25,850	25,400	.....	6,800	4,600	400
Baffalofish	.....	1,200	.....	.....	.....	.....	.....
Bluefish	800	.....	.....	.....	700	1,600	2,400
Butterfish	9,700	4,600	2,000	3,450	15,200	16,100	14,700
Carp	17,881	10,900	15,835	6,400	8,787	4,440	1,850
Catfish	18,060	21,300	64,545	21,285	9,442	7,529	1,540
Cod	4,700	4,300	2,600	800	100	800	400
Crappie	.....	800	.....	.....	.....	.....	.....
Croaker	20,200	13,100	78,708	148,408	120,100	117,305	135,955
Eels	.....	.....	415	256	130	.....	.....
Flounders	16,900	10,300	21,450	3,003	4,066	6,760	2,050
Gizzard shad	7,400	.....	.....	.....	.....	.....	.....
Haddock	1,600	3,300	9,950	1,200	1,240	5,200	4,100
Hake	15,300	7,400	1,300	.....	.....	.....	.....
Halibut	26,000	16,400	15,250	9,345	9,502	6,600	5,250
Herring, river	6,000	33,200	261,835	206,955	50,050	1,030	.....
Hickory shad or "jacks"	.....	.....	950	400	.....	.....	.....
Mackerel	.....	7,900	9,600	3,400	4,900	10,000	3,650
Perch	12,300	12,300	72,300	17,608	4,420	1,828	725
Pike or pickerel	1,180	.....	250	100	.....	.....	.....
Pollock	5,200	5,300	800	.....	.....	400	.....
Redfish or red drum	.....	800	.....	.....	.....	1,000	.....
Red snapper	500	1,000	.....	.....	.....	.....	.....
Salmon	4,200	3,700	6,100	1,100	100	4,550	800
Scup or porgy	.....	.....	.....	.....	2,500	600	.....
Shad	17,900	27,900	84,590	224,828	80,903	27	.....
Smelt	1,100	.....	2,500	.....	.....	.....	.....
Spot	.....	.....	.....	2,100	3,200	3,400	5,810
Squeteagues or "sea trout"	80,000	66,700	34,000	87,400	294,700	165,300	67,330
Striped bass	10,530	9,375	54,995	28,335	5,890	11,751	7,385
Sturgeon	.....	.....	.....	.....	.....	250	.....
Tilefish	.....	1,100	2,025	850	400	200	.....
Whiting	8,300	.....	.....	.....	.....	.....	.....
Clams, hard [1]	2,176	2,048	7,136	31,264	5,376	6,688	6,528
Oysters:[1]							
In the shell	338,800	250,600	240,289	1,736	560	.....	.....
Opened	261,525	170,775	162,731	454	.....	.....	.....
Scallops	.....	.....	.....	110	.....	.....	.....
Crabs	.....	.....	.....	1,995	15,345	57,398	50,875
Crab meat	.....	.....	895	2,250	6,900	8,460	7,965
Frogs	.....	.....	.....	600	611	.....	.....
Lobster	.....	.....	.....	.....	150	50	.....
Shrimp	1,250	800	150	750	700	400	300
Turtles	.....	.....	.....	16	851	.....	.....
Total	919,002	712,948	1,178,599	806,398	653,623	444,266	320,013

[5] Daily reports of the quantity of fishery products received at this market are received by the bureau for tabulation through the courtesy of the health department of the District of Columbia.

Fishery products, in pounds, received at Municipal Fish Wharf and Market, Washington, D. C., 1922—Continued.

Species.	August.	September.	October.	November.	December.	Total.
Bass, black or sea	600	5,600	640	3,400	12,245	115,035
Buffalofish						1,200
Bluefish	5,400	6,250	6,600	7,000	1,200	31,950
Butterfish	21,000	12,200	8,400	12,400	800	120,550
Carp	1,100	4,850	4,200	2,350	2,150	80,743
Catfish	1,240	18,220	17,110	18,720	11,320	210,311
Cod		1,200	1,200	3,300	2,200	21,600
Crappie						800
Croaker	59,200	55,100	17,900	11,600	2,200	779,776
Eels		800	550	1,300	3,065	6,521
Flounders	2,600	5,200	4,400	7,200	2,800	86,729
Gizzard shad		200	600	5,600	9,000	22,800
Haddock	2,600	5,400	6,500	4,400	6,300	51,790
Hake			400	4,800	11,800	41,000
Halibut	3,404	4,050	3,900	6,200	27,000	132,901
Herring, river						559,070
Hickory shad or "jacks"						1,350
Kingfish			200			200
Mackerel	200	2,610		5,600	7,000	54,860
Mullet		245			430	675
Perch	900	5,100	13,750	16,515	8,870	166,616
Pike or pickerel		350	100		890	2,870
Pollock		400				12,100
Redfish or red drum						1,800
Red snapper						1,500
Salmon		1,600	3,275	1,500	11,400	38,325
Scup or porgy		1,400				4,500
Shad		200	1,800			438,148
Smelt					600	4,200
Spot		6,655	12,700	4,200		38,065
Squeteagues or "sea trout"	78,000	163,900	68,100	19,000	14,300	1,138,730
Striped bass	1,000	16,325	23,675	17,400	5,975	192,636
Sturgeon						250
Tilefish						4,575
Whiting					400	8,700
Clams, hard [1]	3,392	4,256	2,304	2,464	1,344	[2] 74,976
Oysters: [1]						
In the shell		18,837	68,600	70,672	52,955	[3] 1,043,049
Opened		5,858	13,332	38,882	48,312	[4] 701,869
Scallops						110
Crabs	26,790	39,840	9,900			202,143
Crab meat	4,900	6,025	2,250	152	240	40,037
Frogs						1,211
Lobster						200
Shrimp		175			800	5,325
Turtles						867
Total	212,326	392,846	292,391	264,655	245,596	6,442,663

[1] The clams have been reduced to pounds on the basis of 8 pounds of meat to a bushel, the oysters on a basis of 7 pounds of meat to a bushel and 8½ pounds to a gallon.
[2] 9,372 bushels.
[3] 149,007 bushels.
[4] 85,075 gallons.

NOTES ON SPONGE FISHERY.

In 1922 the quantity of sponges sold at the Sponge Exchange, Tarpon Springs, Fla., was 526,885 pounds, valued at $699,092, of which 248,475 pounds, valued at $596,199 were large wool; 70,478 pounds, valued at $42,286, small wool; 115,455 pounds, valued at $37,637, yellow; 84,892 pounds, valued at $20,379, grass; and 7,585 pounds, valued at $2,588, wire. It is estimated that sponges to the value of $50,000 were sold outside of the Exchange at Tarpon Springs.

FISHERIES OF NEW YORK, NEW JERSEY, PENNSYLVANIA, AND DELAWARE IN 1921.

The statistics of the fisheries of New York, New Jersey, Pennsylvania, and Delaware contained in this report are based on a canvass of the coast fisheries of these States for the calendar year

1921, and have been published already in condensed form and distributed to the trade as Statistical Bulletin No. 569. The statistics given for the oyster product are for the oyster season beginning in 1921, and those of the shad fishery of the Hudson River are for the calendar years 1921 and 1922 in accordance with the previous practice of making an annual canvass of this fishery. The statistics for New York and Pennsylvania do not include any fisheries of the Great Lakes or other inland waters of those States.

EARLIER PUBLICATIONS.

Some of the earlier publications relating to the fisheries of New York, New Jersey, Pennsylvania, and Delaware, published in Washington, D. C., follow:

1887. New York and Its Fisheries. By Fred. Mather. *In* The Fisheries and Fishery Industries of the United States, by George Brown Goode and associates, 1880 (1887), Section II, Part VI, pp. 341–377.

New Jersey and Its Fisheries. By R. Edward Earll. *Ibid.*, part VII, pp. 379–400.

Pennsylvania and Its Fisheries. By R. Edward Earll. *Ibid.*, part VIII, pp. 401–405.

Delaware and Its Fisheries. By Joseph W. Collins. *Ibid.*, part IX, pp. 407–419.

1890. The Sturgeons and Sturgeon Industries of the Eastern Coast of the United States, with an Account of Experiments Bearing upon Sturgeon Culture. By John A. Ryder. Bulletin, U. S. Fish Commission, Vol. VIII, for 1888 (1890), pp. 231–328.

1892. IV. Fisheries of the Middle Atlantic States [1887 and 1888]. *In* Statistical Review of the Coast Fisheries of the United States, prepared under the direction of J. W. Collins. Report, U. S. Commission of Fish and Fisheries, 1888 (1892), pp. 323–351.

1894. Notes on the Oyster Industry of New Jersey. By Ansley Hall. Report of the Commissioner of Fish and Fisheries for 1892 (1894), pp. 463–528.

1895. A Statistical Report on the Fisheries of the Middle Atlantic States [1889–1893]. By Hugh M. Smith. Bulletin, U. S. Fish Commission, Vol. XIV, 1894 (1895), pp. 339–467.

1898. Shad and Alewife Fisheries [1896–1897]. *In* Report of the Division of Statistics and Methods of the Fisheries. By Hugh M. Smith. Report of the Commissioner of Fish and Fisheries for 1897 (1898), pp. cxxv–cxxx.

1899. Statistics of Certain Fisheries of the New England and Middle Atlantic States and the Great Lakes [1897]. *In* Report of the Division of Statistics and Methods of the Fisheries. By C. H. Townsend. Report of the Commissioner of Fish and Fisheries for 1898 (1899), pp. clxvi–clxxv.

Notes on the Extent and Condition of the Alewife Fisheries of the United States in 1896. By Hugh M. Smith. Appendix to the Report of the Commissioner of Fish and Fisheries for 1898 (1899), pp. 31–43.

1899. The Shad Fisheries of the Atlantic Coast of the United States. By Charles H. Stevenson. Appendix to the Report of the Commissioner of Fish and Fisheries for 1898 (1899), pp. 101–269.

1900. The Sturgeon Fishery of Delaware River and Bay [1890–1898]. By John N. Cobb. Report of the Commissioner of Fish and Fisheries for 1899 (1900), pp. 369–380.

1901. Statistics of the Fisheries of the Middle Atlantic States [1897]. By C. H. Townsend. Appendix to the Report of the Commissioner of Fish and Fisheries for 1900 (1901), pp. 195–310.

1904. The Lobster Fishery [1900]. *In* Report of the Division of Statistics and Methods of the Fisheries. By C. H. Townsend. Report of the Commissioner of Fish and Fisheries for 1902 (1904), pp. 156–158.

Statistics of the Fisheries of the Middle Atlantic States [1901]. By Barton W. Evermann. Report of the Commissioner of Fish and Fisheries for 1902 (1904), pp. 433–540.

1905. Statistics of the Fisheries of the Middle Atlantic States for 1904. Report, U. S. Commissioner of Fisheries, 1905, 122 pp. Bureau of Fisheries Doc. No. 609.

1911. Shad and Alewife Fisheries [1909]. Report, U. S. Commissioner of Fisheries, 1910 (1911), pp. 27–28.
1913. Shad Fisheries [1910]. Report, U. S. Commissioner of Fisheries, 1911 (1913), pp. 35–37.
1914. The Oyster Industry [1911]. Report, U. S. Commissioner of Fisheries, 1912 (1914), pp. 7–23.
1915. The Menhaden Industry [1912]. Report, U. S. Commissioner of Fisheries, 1914 (1915), pp. 18–22.
The Sturgeon Industry of Delaware River [1914]. *Ibid.*, p. 23.
1917. The Lobster Fishery [1913]. Report, U. S. Commissioner of Fisheries, 1915 (1917), pp. 37–43.
Coastal Fisheries of New York and New Jersey [1915]. Report, U. S. Commissioner of Fisheries, 1916 (1917), pp. 72–75.
Shad Fishery of the Hudson River [1915–1916]. *Ibid.*, pp. 76–77.
1920. Coastal Fisheries of New York and New Jersey [1917]. Report, U. S. Commissioner of Fisheries, 1918 (1920), pp. 66–70.
Shad Fishery of the Hudson River [1917–1918]. *Ibid.*, p. 72.
Statistics of the Wholesale Fish Trade of New York City [1918]. *Ibid.*, pp. 73–76.
1921. Shad Fishery of the Hudson River [1919]. *In* Fishery Industries of the United States. Report of the Division of Statistics and Methods of the Fisheries for 1919. By Lewis Radcliffe. Appendix X to the Report of the U. S. Commissioner of Fisheries for 1919 (1921), pp. 49–50. Bureau of Fisheries Doc. No. 892.
Shad Fishery of the Hudson River [1920]. *In* Fishery Industries of the United States. Report of the Division of Statistics and Methods of the Fisheries for 1920. By Lewis Radcliffe. Appendix V to the Report of the U. S. Commissioner of Fisheries for 1921 (1922), p. 51. Bureau of Fisheries Doc. No. 908

COMMON AND SCIENTIFIC NAMES OF FISHES.

Following is a list of the common and scientific names of the fishes of New York, New Jersey, Pennsylvania, and Delaware to which reference is made in this report:

Albacore	*Gymnosarda alleterata.*
Alewives	*Pomolobus æstivalis.*
	Pomolobus pseudoharengus.
Black drum	*Pogonias cromis.*
Bluefish	*Pomatomus saltatrix.*
Bonito	*Sarda sarda.*
Butterfish	*Poronotus triacanthus*
Carp	*Cyprinus carpio.*
Catfish and bullheads	Siluridæ (species).
Cod	*Gadus callarias.*
Croaker	*Micropogon undulatus.*
Cunner	*Tautogolabrus adspersus.*
Eels	*Anguilla rostrata.*
	Leptocephalus conger.
Flounders	*Paralichthys dentatus.*
	Pseudopleuronectes americanus.
	Lophopsetta maculata.
Gizzard shad	*Dorosoma cepedianum.*
Grayfish	*Squalus acanthias.*
	Galeorhinus lævis.
Haddock	*Melanogrammus æglifinus.*
Hake	*Phycis chuss.*
	Phycis tenuis.
Herring, sea	*Clupea harengus.*
Herring, round	*Etrumeus sadina.*
Hickory shad	*Pomolobus mediocris.*
King whiting	*Menticirrhus saxatilis.*
Lance, sand	*Ammodytes americanus.*
Mackerel	*Scomber scombrus.*
Menhaden	*Brevoortia tyrannus.*
Mullet	*Mugil cephalus.*

Mummichog	Fundulus (species).
Perch	*Morone americana.*
Perch, yellow	*Perca flavescens.*
Pigfish	*Orthopristis chrysopterus.*
Pike or pickerel	Esox (species).
Pilot fish	*Naucrates ductor.*
Pollock	*Pollachius virens.*
Pompano	*Trachinotus carolinus.*
Redfish or red drum	*Sciænops ocellatus.*
Roach, or shiners	*Abramis crysoleucas.*
Scup or porgy	*Stenotomus chrysops.*
Sea bass	*Centropristes striatus.*
Sea robin	Prionotus (species).
Shad	*Alosa sapidissima.*
Silversides	Menidia (species).
Spanish mackerel and cero	*Scomberomorus maculatus* *Scomberomorus regalis.*
Spot	*Leiostomus xanthurus.*
Squeteagues, weakfish, or "sea trout"	*Cynoscion regalis.* *Cynoscion nebulosus.*
Striped bass	*Roccus lineatus.*
Sturgeon	*Acipenser sturio.*
Suckers	Catostomidæ (species).
Sunfish	Centrarchidæ (species).
Swellfish	Tetraodontidæ (species).
Swordfish	*Xiphias gladius.*
Tautog	*Tautoga onitis.*
Tilefish	*Lopholatilus chamæleonticeps.*
Tomcod	*Microgadus tomcod.*
Whiting	*Merluccius bilinearis.*
Tuna	*Thunnus thynnus.*

GENERAL STATISTICS.

In 1921, the total number of persons engaged in the fisheries of New York, New Jersey, Pennsylvania, and Delaware was 14,483 as compared with 23,898 in 1904, a decrease of 9,415, or 39.4 per cent. The total investment was $20,498,498, as compared with $16,075,122 in 1904, an increase of $4,423,376, or 27.52 per cent. The products of the fisheries of these States amounted to 332,931,742 pounds, valued at $11,667,393, as compared with 375,412,398 pounds, valued at $10,043,062, in 1904, a decrease of 42,480,656 pounds, or 11.32 per cent, in quantity and an increase of $1,624,331, or 16.17 per cent, in value.

Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921.

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	1,799		2,164		42		279	
On vessels transporting	62		28		2		2	
In shore fisheries	2,365		2,982		105		540	
Shoresmen	2,919		597		442		155	
Total	7,145		5,771		591		976	
INVESTMENT.								
Vessels, fishing, steam.	31	$3,270,000					4	$165,382
Tonnage	1,555						492	
Outfit		242,057						7,591
Vessels, fishing, gasoline	229	791,515	215	$830,100	3	$26,000	12	38,900
Tonnage	2,775		2,493		93		135	
Outfit		240,859		203,940		5,050		9,050

Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921—Continued.

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
INVESTMENT—con.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Vessels, fishing, sail	7	$5,150	127	$300,600	.....	.....	13	$26,200
Tonnage	55	.....	1,818	.....	.....	.....	133	.....
Outfit	.....	1,525	.....	56,295	.....	.....	.....	6,920
Vessels, transporting, steam	2	13,000	.....	.....	.....	.....	.....	.....
Tonnage	41	.....	.....	.....	.....	.....	.....	.....
Outfit	.....	2,380	.....	.....	.....	.....	.....	.....
Vessels, transporting, gasoline	48	182,300	24	49,500	.....	.....	1	600
Tonnage	733	.....	252	.....	.....	.....	7	.....
Outfit	.....	30,249	.....	2,175	.....	.....	.....	.....
Vessels, transporting, sail	2	13,500	4	850	1	$800	3	2,000
Tonnage	103	.....	27	.....	10	.....	21	.....
Outfit	.....	1,100	.....	.....	.....	75	.....	100
Boats, sail, row, etc	1,249	61,005	1,135	36,759	37	1,205	303	7,770
Boats, power, etc	838	443,980	1,551	647,920	8	3,100	113	31,265
Apparatus, vessel fisheries:								
Purse seines	37	86,600	20	23,000	1	1,000	4	6,000
Gill nets	26	2,375	991	17,165	.....	.....	.....	.....
Pound nets	8	27,000	82	315,850	.....	.....	.....	.....
Fyke nets	180	960	.....	.....	.....	.....	.....	.....
Drag nets	2	15	.....	.....	.....	.....	.....	.....
Otter trawls	46	3,655	23	1,630	.....	.....	.....	.....
Lines, hand, trawl and set	.....	4,710	.....	1,296	.....	250	.....	.....
Harpoons	.....	150	.....	.....	.....	.....	.....	.....
Eel pots	150	300	50	125	.....	.....	.....	.....
Lobster pots	1,175	2,543	350	450	.....	.....	.....	.....
Dredges	848	11,302	520	10,605	.....	.....	4	90
Tongs, rakes, etc	122	995	62	630	.....	.....	.....	.....
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs	414	163,285	217	135,220	.....	.....	5	1,000
Gill nets	918	52,442	3,657	100,742	13	1,370	156	6,930
Fyke nets	2,757	22,235	1,285	9,530	25	35	431	1,629
Haul seines	155	14,185	184	13,550	22	1,912	93	9,000
Purse seines	.....	.....	1	600	.....	.....	.....	.....
Drag nets	30	192	.....	.....	.....	.....	.....	.....
Scap nets	138	3,281	.....	.....	.....	.....	.....	.....
Dip nets	22	25	.....	.....	.....	.....	.....	.....
Stop nets	14	1,405	86	12,365	5	625	.....	.....
Bag nets	.....	.....	58	1,160	.....	.....	.....	.....
Otter trawls	50	3,140	8	540	.....	.....	.....	.....
Lines, hand and trawl	.....	4,678	.....	5,023	.....	.....	.....	25
Eel pots	3,780	8,537	4,102	4,632	.....	.....	101	101
Lobster pots	13,363	33,700	10,345	10,944	.....	.....	180	180
Harpoons	.....	185	.....	.....	.....	.....	.....	.....
Spears	46	224	.....	.....	.....	.....	.....	.....
Dredges	1,236	7,838	52	775	.....	.....	.....	.....
Tongs, rakes, and hoes	765	5,088	1,321	6,728	.....	.....	208	1,040
Other apparatus	.....	93	.....	143	.....	.....	.....	888
Shore and acessory property	.....	7,140,497	.....	1,587,762	.....	1,074,156	.....	153,400
Cash capital	.....	936,200	.....	313,100	.....	260,200	.....	108,500
Total	.....	13,836,455	.....	4,701,704	.....	1,375,778	.....	584,561
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	29,354	$1,420	125,642	$3,985	.....	.....	.....	.....
Alewives	377,793	11,283	408,193	11,914	20,085	$405	351,590	$6,431
Bluefish	1,082,917	176,726	2,243,425	390,947	600	108	1,325	265
Bonito	255,887	30,350	1,503,253	91,046	.....	.....	.....	.....
Butterfish	630,076	64,109	2,862,491	159,286	200	6	.....	.....
Carp	421,642	63,678	329,555	53,184	9,712	1,511	87,820	13,166
Catfish	43,435	6,722	101,067	5,976	2,125	128	35,291	2,574
Cod	667,860	37,783	687,277	37,353	.....	.....	.....	.....
Croaker	.....	.....	3,815,554	126,700	2,400	48	418,873	18,682
Drum, black	.....	.....	67,659	1,365	.....	.....	1,150	22
Drum, red	.....	.....	500	10	.....	.....	.....	.....
Eels, fresh	463,552	58,008	274,754	26,450	220	22	16,012	1,598
Eels, smoked	.....	.....	4,680	1,497	.....	.....	.....	.....
Flounders	4,471,161	283,412	1,985,340	140,586	200	10	34,429	1,798
Gizzard shad	.....	.....	.....	.....	.....	.....	7,320	292

Fisheries of New York, New Jersey, Pennsylvania, and Delaware, 1921—Continued.

Items.	New York.		New Jersey.		Pennsylvania.		Delaware.	
PRODUCTS—con.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Haddock	18,515	$876	6,300	$338				
Hake	35,906	1,430	821,018	25,563				
Herring	6,575	206	172,732	4,464				
Hickory shad	23,455	1,444	28,145	1,582				
King whiting	70,447	13,589	24,119	3,334				
Mackerel	282,075	40,356	584,386	100,556				
Menhaden	179,447,799	1,117,235	30,405,093	121,451			18,082,000	$67,970
Mullet, fresh	1,250	85	18,460	1,136			513	25
Mullet, salted			1,200	240				
Perch, white	64,041	7,578	130,970	18,791			6,923	922
Perch, yellow	25,500	2,896	31,282	4,708			2,758	273
Pigfish					2,000	$80		
Pike or pickerel	215	43	500	100			272	25
Pollock	84,300	2,325	4,540	127				
Pompano	35	7						
Scup or porgy	1,297,375	76,253	4,115,552	200,046	142,000	7,100		
Sea bass	148,434	21,412	1,378,330	86,823	135,000	12,500	250	12
Sea robin	38,419	1,140	63,640	1,340				
Shad	115,692	27,128	168,637	44,460	18,872	5,834	86,836	16,312
Sharks	10,659	284	60,459	1,232				
Skates and rays	75,550	1,149	43,100	1,186				
Smelt	6,200	1,185	450	335				
Spanish mackerel	25	5	3,982	979				
Spot	43,757	3,728	189,548	11,502			14,600	928
Squeteagues or weakfish	1,921,036	228,524	11,651,735	902,439	240,000	14,400	886,550	53,317
Striped bass	94,525	18,662	70,348	21,691			4,915	1,426
Sturgeon	33,917	9,199	45,825	7,120			12,090	1,813
Sturgeon caviar	940	1,706	74	194				
Sturgeon roe			3,572	10,746			1,872	5,139
Suckers	132,618	16,731	50,664	5,139	21,199	2,469	983	118
Swordfish	44,865	9,125						
Tautog	54,722	4,362	44,043	2,650			1,500	75
Tilefish	1,133,000	76,984						
Tomcod	57,200	2,083	1,950	97				
Tuna	32,413	2,745	87,734	3,493				
Whitebait	13,561	1,335						
Whiting	939,287	12,212	3,280,833	64,371				
Other fish	171,240	7,652	789	34				
Lobster	1,037,395	196,762	397,841	88,588			10,400	2,600
Shrimp	88,450	28,890	20,000	400				
Crabs, hard	477,242	17,807	119,244	7,290				
Crabs, soft	5,885	1,855	16,800	6,132			4,600	1,150
Crabs, king	750	11	3,313,174	10,416			630,000	1,890
Squid	330,117	18,500	433,902	20,008				
Clams, hard, public	[1] 764,824	214,528	[2] 782,088	364,548			[3] 4,040	2,340
Clams, hard, private	[4] 5,400	1,950						
Clams, soft, public	[5] 186,150	32,670	[6] 143,500	20,650				
Clams, soft, private	[7] 2,000	325						
Skimmers, or surf clams	[8] 48,160	11,300						
Mussels	[9] 50,000	2,500	[10] 791,000	6,070				
Oysters, market, public	[11] 292,453	41,790	[12] 69,300	10,190			[13] 870,219	74,140
Oysters, market, private	[14] 9,131,017	1,733,663	[15] 10,977,855	2,060,306			[16] 1,942,563	293,975
Oysters, seed, public	[17] 69,825	9,710	[18] 11,638,900	666,905			[19] 1,502,949	82,758
Oysters, seed, private	[20] 7,000	750	[21] 311,500	22,529				
Scallops	[22] 1,235,760	217,108	[23] 540	90				
Turtles	800	19	13,715	334			2,250	112
Terrapin	600	350	225	225			300	300
Shells	1,760,000	1,480						
Miscellaneous products	14,099	9,780	7,800	159				
Total	210,377,152	4,986,918	96,936,784	5,983,406	594,613	44,621	25,023,193	652,448

[1] 95,603 bushels.
[2] 97,761 bushels.
[3] 505 bushels.
[4] 675 bushels.
[5] 18,615 bushels.
[6] 14,350 bushels.
[7] 200 bushels.
[8] 6,020 bushels.
[9] 5,000 bushels.
[10] 79,100 bushels.
[11] 41,779 bushels.
[12] 9,900 bushels.
[13] 124,317 bushels.
[14] 1,304,431 bushels.
[15] 1,568,265 bushels.
[16] 277,509 bushels.
[17] 9,975 bushels.
[18] 1,662,700 bushels.
[19] 214,707 bushels.
[20] 1,000 bushels.
[21] 44,500 bushels.
[22] 205,960 bushels.
[23] 90 bushels.

NOTE.—The above statistics do not include any fisheries of the Great Lakes or other inland waters. The statistics for New York include 83,718 bushels of market oysters from private grounds, valued at $83,718, taken by vessels owned and employed, mainly in Connecticut.

SHAD FISHERY OF THE HUDSON RIVER.

In 1921 there were 307 persons engaged in the fishery of the Hudson River in New York and New Jersey. The investment amounted to $44,607, and the catch was 35,448 shad in number, or 130,803 pounds, valued at $30,623. Of this quantity 28,948 shad in number, or 104,883 pounds, valued at $24,329, were taken in New York and 6,500 in number, or 25,920 pounds, valued at $6,294, in New Jersey.

In 1922 there were 272 persons engaged in this fishery, the investment amounted to $40,342, and the catch was 48,336 shad in number, or 175,186 pounds, valued at $39,706. The catch in New York was 36,111 shad in number, or 128,324 pounds, valued at $27,451, and in New Jersey 12,225 in number, or 46,862 pounds, valued at $12,255.

Compared with 1920 there was a decrease in 1921 of 61 persons and of 13,867 shad in number, or 69,041 pounds, and of $25,706 in the value, but an increase of $4,256 in the investment. In 1922, as compared with 1920, there was a decrease of 96 persons and of 979 in the number of shad, 24,658 in the number of pounds, and $16,603 in the value, with practically no change in the amount of capital invested. In 1922 the number of persons engaged and the investment in the fishery were not as large as in 1921, but there was an increase in the catch of 4,888 shad in number, or 44,383 pounds, and of $9,103 in the value. The statistics for 1921 and 1922, and also comparative statistics of the catch from 1915 to 1922, are given in the following tables:

Shad fishery of the Hudson River, 1921 and 1922.

Items.	1921								
	New York.			New Jersey.			Total.		
	Number.	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Fishermen	286	.....	.....	21	.....	.....	307	.....	.....
Rowboats	185	.....	$8,560	13	.....	$1,000	198	.....	$9,560
House boats	1	.....	150	.....	.....	.....	1	.....	150
Gasoline boats	34	.....	5,300	4	.....	200	38	.....	5,500
Gill nets	159	.....	19,687	8	.....	2,910	167	.....	22,597
Haul seines	5	.....	590	.....	.....	.....	5	.....	590
Shore and accessory property	.....	.....	2,635	.....	.....	3,575	.....	.....	6,210
Total	.....	.....	36,922	.....	.....	7,685	.....	.....	44,607
Shad caught:									
With gill nets	27,991	101,465	23,469	6,500	25,920	6,294	34,491	127,385	29,763
With seines	747	2,603	601	.....	.....	.....	747	2,603	601
With other apparatus incidentally	210	815	259	.....	.....	.....	210	815	259
Total	28,948	104,883	24,329	6,500	25,920	6,294	35,448	130,803	30,623

Shad fishery of the Hudson River, 1921 and 1922—Continued.

Items.	1922								
	New York.			New Jersey.			Total.		
	Number.	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
Fishermen	251	.....	.....	21	.....	.....	272	.....	.....
Rowboats	164	.....	$7,680	13	.....	$1,000	177	.....	$8,680
House boats	1	.....	150	.....	.....	.....	1	.....	150
Gasoline boats	22	.....	4,050	4	.....	200	26	.....	4,250
Gill nets	133	.....	17,532	8	.....	2,910	141	.....	20,442
Haul seines	5	.....	610	.....	.....	.....	5	.....	610
Shore and accessory property	.....	.....	2,635	.....	.....	3,575	.....	.....	6,210
Total	.....	.....	32,657	.....	.....	7,685	.....	.....	40,342
Shad caught:									
With gill nets	34,763	123,469	26,327	12,225	46,862	12,255	46,988	170,331	38,582
With seines	1,348	4,855	1,124	.....	.....	.....	1,348	4,855	1,124
With other apparatus incidentally	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	36,111	128,324	27,451	12,225	46,862	12,255	48,336	175,186	39,706

Comparative statistics of shad fishery of the Hudson River, 1915-1922.

Year.	New York.			New Jersey.			Total.		
	Number.	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*	*Number.*	*Pounds.*	*Value.*
1915	11,606	48,564	$5,969	4,249	20,104	$2,674	15,855	68,668	$8,643
1916	7,787	32,923	4,540	1,500	7,250	925	9,287	40,173	5,465
1917	10,615	38,344	5,810	1,400	5,040	720	12,015	43,384	6,540
1918	63,404	220,602	44,784	3,999	14,000	3,400	67,403	234,602	48,184
1919	76,501	301,306	60,690	13,800	73,668	23,034	90,301	374,974	83,724
1920	39,692	157,715	43,882	9,623	42,129	12,427	49,315	199,844	56,309
1921	28,948	104,883	24,329	6,500	25,920	6,294	35,448	130,803	30,623
1922	36,111	128,324	27,451	12,225	46,862	12,255	48,336	175,186	39,706

FISHERIES OF NEW YORK.

In 1921 the number of persons employed in the fisheries of New York was 7,145, of whom 1,799 were on vessels fishing, 62 on transporting vessels, 2,365 in the shore or boat fisheries, and 2,919 on shore in wholesale establishments and other fishery industries.

The investment in the fisheries and fishery industries amounted to $13,836,455 and included 319 fishing and transporting vessels, valued at $4,275,465, with a tonnage of 5,262 net tons, and outfits valued at $518,170; 2,087 boats, valued at $504,985; fishing apparatus valued at $461,138; shore and accessory property valued at $7,140,497; and cash capital amounting to $936,200.

The products of the fisheries amounted to 210,377,152 pounds, valued at $4,986,918. The principal species taken, arranged in the order of their value, were: Oysters, 9,500,295 pounds, or 1,357,185 bushels, valued at $1,785,913; menhaden, 179,447,799 pounds, valued at $1,117,235; flounders, 4,471,161 pounds, valued at $283,412; clams, 1,006,538 pounds, or 121,113 bushels, valued at $260,773; squeteaques, "sea trout," or weakfish, 1,921,036 pounds, valued at $228,524; scallops, 1,235,760 pounds, or 205,960 bushels, valued at $217,108; lobster, 1,037,395 pounds, valued at $196,762; and bluefish, 1,082,917 pounds, valued at $176,726.

Compared with 1904 there was a decrease in the number of persons employed of 4,348, or 37.83 per cent, and an increase in the investment of $3,214,839, or 30.26 per cent. There was a decrease in the products of 67,272,595 pounds, or 24.23 per cent, in quantity and of $1,243,640, or 19.96 per cent, in value.

The following table gives the number of persons employed, investment, and products of the fisheries of New York, by counties, in 1921:

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties.

Items.	Albany.		Bronx.		Broome, Delaware, Sullivan, and Tioga.		Columbia.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
In shore fisheries	45		14		23		50	
Shoresmen			1					
Total	45		15		23		50	
INVESTMENT.								
Boats:								
Sail, row, etc.	29	$1,060	8	$210	20	$275	32	$1,485
Power	5	625	6	1,450			4	1,000
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs					18	855		
Gill nets	1	50					16	1,590
Fyke nets	132	2,270					98	1,400
Haul seines	11	1,345			1	200	8	645
Scap nets	16	398					11	293
Eel pots							6	18
Lobster pots			48	100				
Hoes			10	10				
Shore and accessory property		110		8,600		160		655
Cash capital				1,200				
Total		5,858		11,570		1,490		7,086
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	1,610	131					3,450	253
Carp	26,697	3,791					59,428	6,083
Catfish and bullheads	7,955	1,398					2,472	608
Eels	3,538	422			33,700	4,452	955	189
Perch, yellow	1,592	171					2,944	410
Pickerel	50	15					10	3
Shad	1,016	217			1,000	200	2,750	714
Sturgeon							304	106
Suckers	19,329	2,846					30,501	3,739
Other fish	1,000	10					115	11
Lobster			1,000	200				
Miscellaneous products			322	515				
Total	62,787	9,001	1,322	715	34,700	4,652	102,929	12,116

Items.	Dutchess.		Greene.		Kings.		Nassau.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing					64		73	
On vessels transporting							4	
In shore fisheries	110		48		222		282	
Shoresmen					125		46	
Total	110		48		411		405	
INVESTMENT.								
Vessels fishing:								
Steam							1	$3,000
Tonnage							36	
Outfit								800
Gasoline					11	$53,655	23	71,400
Tonnage					178		264	
Outfit						25,850		18,630

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Dutchess.		Greene.		Kings.		Nassau.	
INVESTMENT—continued.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Vessels transporting:								
Gasoline							5	$9,800
Tonnage							53	
Outfit								3,113
Boats:								
Sail, row, etc.	94	$4,235	38	$2,170	37	$1,370	133	9,595
Power	10	1,475	1	1,000	91	54,025	111	53,275
Apparatus, vessel fisheries:								
Purse seines					2	2,200		
Gill nets							12	350
Otter trawls					5	440	5	330
Lines, hand and trawl						710		
Harpoons						100		
Lobster pots					90	158		
Dredges					2	50	41	1,375
Tongs							2	20
Rakes					3	35		
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs							2	15,000
Gill nets	48	4,952	8	1,110	2	600	268	12,975
Fyke nets	75	1,054	35	430				
Haul seines	3	200	5	400	8	575	4	415
Drag nets							3	25
Scap nets	21	495	15	320				
Dip nets							12	14
Stop nets			5	725				
Otter trawls					5	400		
Lines, hand and trawl		40				310		1,660
Eel pots	26	66			80	145	120	315
Lobster pots					5,265	14,435	225	550
Spears							32	168
Dredges							66	1,195
Tongs					18	171	119	964
Rakes					19	210	16	77
Hoes					45	45	36	37
Other apparatus						1		
Shore and accessory property		790		125		224,685		60,660
Cash capital						66,300		5,500
Total		13,307		6,280		446,470		271,243
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore							6,000	$300
Alewives	13,740	$1,267	21,425	$1,522			2,685	125
Bluefish					204,233	$32,225	40,425	9,390
Bonito							42,060	5,150
Butterfish							23,400	2,600
Carp	16,518	1,998	25,655	3,158				
Catfish and bullheads	3,130	601	1,794	320				
Cod					69,500	2,800	88,950	5,815
Eels	6,514	723	86	16	13,335	1,600	68,925	8,605
Flounders					438,050	21,960	233,025	13,735
Haddock					7,000	100	6,490	400
Hake					3,150	250	4,375	205
Hickory shad							900	52
King whiting							600	120
Mackerel							60,105	7,700
Perch, yellow	2,938	350	1,415	168				
Pickerel	10	2						
Pollock							2,850	160
Scup					426,000	21,300	22,400	1,940
Sea bass					17,050	2,065	7,650	1,525
Shad	35,449	7,982	80	25	2,757	1,000	1,200	240
Sharks							800	30
Spot							1,600	145
Squeteagues					28,575	950	350,325	46,708
Striped bass							2,450	570
Sturgeon	3,335	716	150	10			1,200	410
Sturgeon cavair	99	299						
Suckers	8,760	945	2,845	358				
Swordfish					30,000	6,000		
Tautog					1,400	200	200	18
Tilefish					300,000	21,000		
Tuna							12,000	1,000
Whiting							32,570	405
Other fish	751	75			16,140	2,950		
Lobster					406,300	62,880	10,450	2,425

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Dutchess.		Greene.		Kings.		Nassau.	
PRODUCTS—continued.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Shrimp					1,125	$250	6,000	$2,000
Crabs, soft							5,795	1,825
Squid							4,500	285
Clams, hard, public					3,400	1,275	60,152	24,245
Clams, hard, private							5,400	1,950
Clams, soft, public					3,000	600	74,300	12,950
Clams, soft, private							2,000	325
Skimmers or surf clams					48,160	11,300		
Mussels							50,000	2,500
Oysters, market, public					5,250	750	2,520	575
Oysters, market, private							1,174,733	277,813
Oysters, seed, public					5,600	800		
Scallops, sea					10,740	2,150	42,096	13,830
Miscellaneous products					12,902	8,125	180	290
Total	91,244	$14,958	53,450	$5,577	2,053,667	202,530	2,451,311	448,361

Items.	New York.		Orange.		Putnam.		Queens.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	136						8	
On vessels transporting	9							
In shore fisheries	7		57		4		37	
Shoresmen	1,591							
Total	1,743		57		4		45	
INVESTMENT.								
Vessels fishing:								
Gasoline	11	$115,080					1	$2,000
Tonnage	378						43	
Outfit		48,380						600
Vessels transporting:								
Steam	1	9,000						
Tonnage	26							
Outfit		1,000						
Gasoline	1	10,000						
Tonnage	63							
Outfit		3,000						
Boats:								
Sail, row, etc			40	$1,590	4	$175	15	320
Power	7	6,150	5	600			25	6,250
Apparatus, vessel fisheries:								
Purse seines	8	11,500						
Otter trawls	2	260						
Lines, hand and trawl		3,950						40
Dredges	4	275						
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs			4	165				
Gill nets			14	2,145	1	110		
Fyke nets			114	1,425				
Haul seines			16	1,075				
Scap nets			8	200	2	45		
Otter trawls	1	80						
Lines, hand and trawl				63				160
Eel pots			25	50			40	80
Spears							8	42
Tongs	2	18						
Hoes	2	2					13	12
Other apparatus								90
Shore and accessory property		3,882,638		1,720		20		275
Cash capital		767,900						
Total		4,859,233		9,033		350		9,869
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			3,129	$197				
Bluefish	663,650	$105,023						
Carp			25,075	3,752	300	$60		
Catfish and bullheads			1,603	276				
Cod	5,000	200					31,000	$2,100
Eels			7,652	1,075			4,050	925
Flounders	90,000	4,200					7,755	1,315
Perch, yellow			1,757	225	100	10		
Scup	580,400	30,596						
Sea bass	11,800	1,290						

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	New York.		Orange.		Putnam.		Queens.	
PRODUCTS—continued.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Shad			7,060	$1,833	480	$120		
Squeteagues	130,600	$3,938					5,000	$1,150
Striped bass							60	20
Suckers			24,972	3,492	550	110		
Tautog							500	100
Tilefish	833,000	55,984						
Tomcod			4,800	219			1,700	200
Other fish	3,000	90	11,343	151			9,500	950
Shrimp							4,700	1,100
Clams, hard, public	2,200	1,100					896	450
Clams, soft, public							6,500	875
Oysters, market, private	455,000	87,500						
Miscellaneous products	90	150					405	550
Total	2,774,740	290,071	87,391	11,220	1,430	300	72,066	9,735

Items.	Rensselaer.		Richmond.		Rockland.		Suffolk.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing			61				1,454	
On vessels transporting							49	
In shore fisheries	30		39		52		1,071	
Shoresmen							1,123	
Total	30		100		52		3,697	
INVESTMENT.								
Vessels fishing:								
Steam							30	$3,267,000
Tonnage							5,619	
Outfit								241,257
Gasoline			16	$56,800			166	487,580
Tonnage			214				1,669	
Outfit				33,800				113,399
Sail			1	1,200			6	3,950
Tonnage			23				32	
Outfit				500				1,025
Vessels transporting:								
Steam							1	4,000
Tonnage							15	
Outfit								1,380
Gasoline							42	162,500
Tonnage							617	
Outfit								24,136
Sail							2	13,500
Tonnage							103	
Outfit								1,100
Boats:								
Sail, row, etc	22	$1,065	15	550	28	$1,050	543	28,155
Power	1	150	13	9,550	7	1,950	522	300,130
Apparatus, vessel fisheries:								
Purse seines							27	72,900
Gill nets							14	2,025
Pound nets							8	27,000
Fyke nets							180	960
Drag nets							2	15
Otter trawls							34	2,625
Lines, hand and trawl								10
Harpoons								50
Eel pots							150	300
Lobster pots							1,085	2,385
Dredges			34	1,190			752	8,112
Tongs							107	884
Rakes			4	50			6	6
Apparatus, shore fisheries:								
Pound nets, floating traps, and weirs							390	147,265
Gill nets					55	1,955	382	13,655
Fyke nets	78	1,130			2	60	2,016	11,425
Haul seines	10	705			9	1,100	53	5,155
Drag nets							27	167
Scap nets	10	235			2	50		
Dip nets							10	11
Otter trawls			1	75			43	2,585
Lines, hand and trawl		15		75		43		2,168
Eel pots			20	40	170	305	3,114	7,060
Lobster pots			910	1,820			6,885	16,735
Harpoons								185

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Rensselaer.		Richmond.		Rockland.		Suffolk.	
INVESTMENT—contd.								
Apparatus—Continued.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Spears							6	$14
Dredges			6	$100			1,164	6,543
Tongs			8	50			219	1,617
Rakes			14	150			179	1,571
Hoes							57	79
Forks							1	2
Other apparatus								2
Shore and accessory property		$240		1,380		$850		2,924,769
Cash capital								90,300
Total		3,540		107,330		7,363		7,997,692
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore							23,354	$1,120
Alewives					910	$76	296,120	4,970
Bluefish							174,609	30,088
Bonito							213,827	25,200
Butterfish							606,676	61,509
Carp	23,488	$3,050			5,783	729	156,913	30,095
Catfish and bullheads	4,586	816			160	19	15,335	1,555
Cod			26,000	$1,400			447,410	25,468
Eels	293	61	1,000	175	9,105	1,007	290,089	35,693
Flounders			37,000	3,000			3,665,331	239,202
Haddock							5,025	376
Hake							28,381	975
Herring							6,575	206
Hickory shad							22,555	1,392
King whiting							69,847	13,469
Mackerel							221,970	32,656
Menhaden							179,447,799	1,117,235
Mullet							1,250	85
Perch, white					1,055	120	62,086	7,363
Perch, yellow	1,612	170			115	17	400	60
Pickerel	45	9						
Pollock							81,450	2,165
Pompano							35	7
Scup							268,575	22,417
Sea bass							111,934	16,532
Sea robin							38,419	1,140
Shad					5,985	1,635	5,852	1,359
Sharks							9,859	254
Skates							75,550	1,149
Smelt							6,200	1,185
Spanish mackerel							25	5
Spot							42,157	3,583
Squeteagues							1,406,536	175,778
Striped bass					5,400	1,239	83,275	15,937
Sturgeon	2,080	373			538	86	16,416	5,257
Sturgeon caviar							496	602
Suckers	6,668	803			1,420	137		
Swordfish							14,865	3,125
Tautog							52,622	4,044
Tomcod							47,200	1,579
Tuna							20,413	1,745
Whitebait							13,561	1,335
Whiting							906,717	11,807
Other fish	700	66					117,444	3,063
Lobster			45,400	11,700			573,845	119,477
Shrimp							76,625	25,540
Crabs, hard							463,242	17,107
Crabs, soft							90	30
Crabs, king							750	11
Squid							325,617	18,215
Clams, hard, public			9,240	4,400			688,536	182,758
Clams, soft, public							81,350	13,745
Oysters, market, public			13,300	2,000			264,383	36,565
Oysters, market, private			[1] 2,534,714	514,741			4,966,570	853,609
Oysters, seed, public			19,950	2,850			44,275	6,060
Oysters, seed, private							7,000	750
Scallops, bay							1,152,528	192,376
Scallops, sea							30,396	8,752
Turtles							800	19
Terrapin							600	350
Shells							1,760,000	1,480
Miscellaneous products							200	150
Total	39,472	5,348	2,686,604	540,266	30,471	5,065	199,511,960	3,379,779

[1] Includes 83,718 bushels, valued at $83,718, taken up by vessels owned and employed mainly in Connecticut.

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Ulster.		Westchester.		Total.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing			3		1,799	
On vessels transporting					62	
In shore fisheries	167		107		2,365	
Shoresmen			33		2,919	
Total	167		143		7,145	
INVESTMENT.						
Vessels fishing:						
Steam					31	$3,270,000
Tonnage					1,555	
Outfit						242,057
Gasoline			1	$5,000	229	791,515
Tonnage			29		2,775	
Outfit				200		240,859
Sail					7	5,150
Tonnage					55	
Outfit						1,525
Vessels transporting:						
Steam					2	13,000
Tonnage					41	
Outfit						2,380
Gasoline					48	182,300
Tonnage					733	
Outfit						30,249
Sail					2	13,500
Tonnage					103	
Outfit						1,100
Boats:						
Sail, row, etc	115	$4,485	76	3,215	1,249	61,005
Power	15	2,700	15	3,650	838	443,980
Apparatus, vessel fisheries:						
Purse seines					37	86,600
Gill nets					26	2,375
Pound nets					8	27,000
Fyke nets					180	960
Drag nets					2	15
Otter trawls					46	3,655
Lines, hand and trawl						4,710
Harpoons						150
Eel pots					150	300
Lobster pots					1,175	2,543
Dredges			15	300	848	11,302
Tongs					109	904
Rakes					13	91
Apparatus, shore fisheries:						
Pound nets, floating traps, and weirs					414	163,285
Gill nets	89	10,395	34	2,905	918	52,442
Fyke nets	126	1,910	81	1,131	2,757	22,235
Haul seines	16	1,325	11	1,045	155	14,185
Drag nets					30	192
Scap nets	51	1,195	2	50	138	3,281
Dip nets					22	25
Stop nets	9	680			14	1,405
Otter trawls					50	3,140
Lines, hand and trawl		50		94		4,678
Eel pots	25	58	154	400	3,780	8,537
Lobster pots			30	60	13,363	33,700
Harpoons						185
Spears					46	224
Dredges					1,236	7,838
Tongs			8	64	374	2,884
Rakes					228	2,008
Hoes			9	9	162	194
Forks					1	2
Other apparatus						93
Shore and accessory property		875		31,945		7,140,497
Cash capital				5,000		936,200
Total		23,673		55,068		13,836,455
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore					29,354	$1,420
Alewives	34,299	$2,719	425	$23	377,793	11,283
Bluefish					1,082,917	176,726
Bonito					255,887	30,350
Butterfish					630,076	64,109
Carp	51,099	7,948	30,686	3,014	421,642	63,678
Catfish and bullheads	3,909	773	2,491	356	43,435	6,722
Cod					667,860	37,783
Eels	2,547	397	21,763	2,668	463,552	58,008

Persons engaged, investment, and products of the fisheries of New York in 1921, by counties—Continued.

Items.	Ulster.		Westchester.		Total.	
PRODUCTS—Continued	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Flounders					4,471,161	$283,412
Haddock					18,515	876
Hake					35,906	1,430
Herring					6,575	206
Hickory shad					23,455	1,444
King whiting					70,447	13,589
Mackerel					282,075	40,356
Menhaden					179,447,799	1,117,235
Mullet					1,250	85
Perch, white			900	$95	64,041	7,578
Perch, yellow	5,186	$549	7,441	766	25,500	2,896
Pickerel	79	16	21	3	215	48
Pollock					84,300	2,325
Pompano					35	7
Scup					1,297,375	76,253
Sea bass					148,434	21,412
Sea robin					38,419	1,140
Shad	43,866	9,853	8,197	1,950	115,692	27,128
Sharks					10,659	284
Skates					75,550	1,149
Smelt					6,200	1,185
Spanish mackerel					25	5
Spot					43,757	3,728
Squeteagues					1,921,036	228,524
Striped bass			3,340	896	94,525	18,662
Sturgeon	3,744	984	6,150	1,257	33,917	9,199
Sturgeon caviar			345	805	940	1,706
Suckers	18,870	2,263	18,703	2,038	132,618	16,731
Swordfish					44,865	9,125
Tautog					54,722	4,362
Tilefish					1,133,000	76,984
Tomcod			3,500	85	57,200	2,083
Tuna					32,413	2,745
Whitebait					13,561	1,335
Whiting					939,287	12,212
Other fish	10,555	224	692	62	171,240	7,652
Lobster			400	80	1,037,395	196,762
Shrimp					88,450	28,890
Crabs, hard			14,000	700	477,242	17,807
Crabs, soft					5,885	1,855
Crabs, king					750	11
Squid					330,117	18,500
Clams, hard, public			400	300	[2] 764,824	214,528
Clams, hard, private					[3] 5,400	1,950
Clams, soft, public			21,000	4,500	[4] 186,150	32,670
Clams, soft, private					[5] 2,000	325
Skimmers or surf clams					[6] 48,160	11,300
Mussels					[7] 50,000	2,500
Oysters, market, public			7,000	1,900	[8] 292,453	41,790
Oysters, market, private					[9] 9,131,017	1,733,663
Oysters, seed, public					[10] 69,825	9,710
Oysters, seed, private					[11] 7,000	750
Scallops, bay					[12] 1,152,528	192,376
Scallops, sea					[13] 83,232	24,732
Turtles					800	35
Terrapin					600	480
Shells					[14] 1,760,000	1,480
Miscellaneous products					14,099	9,780
Total	174,154	25,726	147,454	21,498	210,377,152	4,986,918

[2] 95,603 bushels.
[3] 675 bushels.
[4] 18,615 bushels.
[5] 200 bushels.
[6] 6,020 bushels.
[7] 5,000 bushels.
[8] 41,779 bushels.
[9] 1,304,431 bushels.
[10] 9,975 bushels.
[11] 1,000 bushels.
[12] 192,088 bushels.
[13] 13,872 bushels.
[14] 44,000 bushels.

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore or boat fisheries of New York are shown separately in the following table. The catch taken by vessels amounted to 194,276,310 pounds, valued at $3,478,037, and by boats in the shore fisheries to 16,100,842 pounds, valued at $1,508,881.

Products of the vessel and shore fisheries of New York, 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	10,000	$500	19,354	$920	29,354	$1,420
Alewives	7,070	299	370,723	10,984	377,793	11,283
Bluefish	902,508	144,473	180,409	32,253	1,082,917	176,726
Bonito	95,000	14,050	160,887	16,300	255,887	30,350
Butterfish	55,000	6,500	575,076	57,609	630,076	64,109
Carp			421,642	63,678	421,642	63,678
Catfish and bullheads			43,435	6,722	43,435	6,722
Cod	75,000	2,720	592,860	35,063	667,860	37,783
Eels	8,390	1,170	455,162	56,838	463,552	58,008
Flounders	1,577,370	116,597	2,893,791	166,815	4,471,161	283,412
Haddock	7,000	100	11,515	776	18,515	876
Hake			35,906	1,430	35,906	1,430
Herring			6,575	206	6,575	206
Hickory shad	1,600	95	21,855	1,349	23,455	1,444
King Whiting	1,115	240	69,332	13,349	70,447	13,589
Mackerel	50,500	7,400	231,575	32,956	282,075	40,356
Menhaden	178,683,105	1,113,057	764,694	4,178	179,447,799	1,117,235
Mullet			1,250	85	1,250	85
Perch, white			64,041	7,578	64,041	7,578
Perch, yellow			25,500	2,896	25,500	2,896
Pickerel			215	48	215	48
Pollock	1,600	80	82,700	2,245	84,300	2,325
Pompano			35	7	35	7
Scup	1,046,750	55,933	250,625	20,320	1,297,375	76,253
Sea bass	29,250	3,584	119,184	17,828	148,434	21,412
Sea robin			38,419	1,140	38,419	1,140
Shad	1,950	389	113,742	26,739	115,692	27,128
Sharks	2,800	111	7,859	173	10,659	284
Skates			75,550	1,149	75,550	1,149
Smelt			6,200	1,185	6,200	1,185
Spanish mackerel			25	5	25	5
Spot	2,000	159	41,757	3,569	43,757	3,728
Squeteagues	831,165	104,897	1,089,871	123,627	1,921,036	228,524
Striped bass	100	30	94,425	18,632	94,525	18,662
Sturgeon	2,200	769	31,717	8,430	33,917	9,199
Sturgeon caviar	200	400	740	1,306	940	1,706
Suckers			132,618	16,731	132,618	16,731
Swordfish	35,800	7,000	9,065	2,125	44,865	9,125
Tautog	900	88	53,822	4,274	54,722	4,362
Tilefish	1,133,000	76,984			1,133,000	76,984
Tomcod	300	18	56,900	2,065	57,200	2,083
Tuna	15,500	1,300	16,913	1,445	32,413	2,745
Whitebait			13,561	1,335	13,561	1,335
Whiting	59,000	668	880,287	11,544	939,287	12,212
Other fish	3,000	90	168,240	7,562	171,240	7,652
Lobster	47,100	10,400	990,295	186,362	1,037,395	196,762
Shrimp	2,325	775	86,125	28,115	88,450	28,890
Crabs, hard	29,850	1,334	447,392	16,473	477,242	17,807
Crabs, soft			5,885	1,855	5,885	1,855
Crabs, king			750	11	750	11
Squid	13,000	840	317,117	17,660	330,117	18,500
Clams, hard, public	146,352	66,243	618,472	148,285	[2] 764,824	214,528
Clams, hard, private			5,400	1,950	[3] 5,400	1,950
Clams, soft, public			186,150	32,670	[4] 186,150	32,670
Clams, soft, private			2,000	325	[5] 2,000	325
Skimmers or surf clams			48,160	11,300	[6] 48,160	11,300
Mussels	30,000	1,500	20,000	1,000	[7] 50,000	2,500
Oysters, market, public	80,122	12,960	212,331	28,830	[8] 292,453	41,790
Oysters, market, private	[1] 8,790,803	1,648,235	340,214	85,428	[9] 9,131,017	1,733,663
Oysters, seed, public	44,275	6,260	25,550	3,450	[10] 69,825	9,710
Oysters, seed, private	7,000	750			[11] 7,000	750
Scallops, bay	422,790	62,369	729,738	130,007	[12] 1,152,528	192,376
Scallops, sea	22,920	6,320	60,312	18,412	[13] 83,232	24,732
Turtles			800	19	800	19
Terrapin	600	350			600	350
Shells			1,760,000	1,480	[14] 1,760,000	1,480
Miscellaneous products			14,099	9,780	14,099	9,780
Total	194,276,310	3,478,037	16,100,842	1,508,881	210,377,152	4,986,918

[1] Includes 83,718 bushels, valued at $83,718, taken up by vessels owned and employed mainly in Connecticut.

[2] 95,603 bushels.
[3] 675 bushels.
[4] 18,615 bushels.
[5] 200 bushels.
[6] 6,020 bushels.
[7] 5,000 bushels.
[8] 41,779 bushels.
[9] 1,304,431 bushels.
[10] 9,975 bushels.
[11] 1,000 bushels.
[12] 192,088 bushels.
[13] 13,872 bushels.
[14] 44,000 bushels.

FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of New York in 1921 were purse and haul seines, with a catch of 180,655,920 pounds, valued at $1,262,217; pound nets and trap nets, with 6,756,423 pounds, valued at $529,844; otter trawls, with 2,941,095 pounds, valued at $205,717; lines, with 3,348,876 pounds, valued at $297,640; dredges, tongs, rakes, etc., with 13,514,532 pounds, valued at $2,259,493, consisting chiefly of oysters, clams, and scallops; and lobster pots, with 1,028,460 pounds, valued at $194,952, of which 1,021,710 pounds, valued at $193,602, were lobsters, and the remainder sea bass. There were also 7,985 pounds of lobsters, valued at $1,615, taken in otter trawls, and 7,700 pounds, valued at $1,545, in pound nets. The catch with fyke nets, consisting chiefly of flounders, amounted to 917,568 pounds, valued at $41,279, and with gill nets, to 607,077 pounds, valued at $93,517. Considerable quantities of products were also taken with dip nets, scap nets, stop nets, harpoons, drag nets, eel pots, spears, and minor forms of apparatus. The entire catch of swordfish, amounting to 44,865 pounds, valued at $9,125, was taken with harpoons. The products taken with each form of fishing apparatus in the vessel and shore fisheries combined are shown in the appended tables.

Yield of the fisheries of New York in 1921, by counties, apparatus, and species.

BY PURSE SEINES AND HAUL SEINES.

Apparatus and species.	Albany.		Broome.		Columbia.		Dutchess.	
Haul seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	1,550	$119	.....	.....	3,000	$220	90	$11
Bullheads	4,270	591	.....	.....	400	100	.....	.....
Carp	7,662	1,136	.....	.....	8,124	788	3,600	391
Minnows	1,000	10	.....	.....	.....	.....	.....	.....
Perch, yellow	97	10	.....	.....	200	20	20	2
Shad	.....	.....	1,000	$200	250	66	125	29
Suckers	3,666	501	.....	.....	10,178	1,485	850	115
Total	18,245	2,367	1,000	200	22,152	2,679	4,685	548

Apparatus and species.	Greene.		Kings.		Nassau.		New York.	
Purse seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bluefish	.....	.....	5,000	$1,000	.....	.....	550	$100
Scup	.....	.....	426,000	21,300	.....	.....	580,400	30,596
Sea bass	.....	.....	6,000	900	.....	.....	11,800	1,290
Squeteagues	.....	.....	26,700	800	.....	.....	130,600	3,938
Other fish	.....	.....	.....	.....	.....	.....	3,000	90
Total	.....	.....	463,700	24,000	.....	.....	726,350	36,014
Haul seines:								
Alewives	3,000	$220	.....	.....	285	$10	.....	.....
Bluefish	.....	.....	.....	.....	525	115	.....	.....
Bullheads	450	68	.....	.....	.....	.....	.....	.....
Carp	2,500	264	.....	.....	.....	.....	.....	.....
Eels	.....	.....	.....	.....	3,400	400	.....	.....
Flounders	.....	.....	.....	.....	34,525	2,535	.....	.....
Lance	.....	.....	2,585	775	.....	.....	.....	.....
Mummichog	.....	.....	5,005	450	.....	.....	.....	.....
Perch, yellow	220	23	.....	.....	.....	.....	.....	.....
Roach, or shiners	.....	.....	3,750	1,125	.....	.....	.....	.....
Spot	.....	.....	.....	.....	1,000	100	.....	.....
Squeteagues	.....	.....	625	50	10,825	1,388	.....	.....
Striped bass	.....	.....	.....	.....	1,600	400	.....	.....
Suckers	220	22	.....	.....	.....	.....	.....	.....
Total	6,390	597	11,965	2,400	52,160	4,948	.....	.....

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY PURSE SEINES AND HAUL SEINES—Continued

Apparatus and species.	Orange.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Purse seines: Menhaden							178,629,705	$1,112,666
Haul seines:								
Alewives	320	$30			210	$21	167,000	1,985
Bluefish							11,990	1,865
Bullheads			1,675	$304	50	8		
Carp	20,742	3,120	15,357	2,082	4,883	634	156,913	30,095
Catfish							15,335	1,555
Cod							150	15
Eels							50	7
King whiting							2,100	325
Mackerel							4,050	668
Menhaden							25,658	315
Minnows	9,163	113	700	66				
Mummichog							26,900	342
Perch, white					325	27	43,301	4,625
Perch, yellow	817	99	800	80			400	60
Roach, or shiners	2,180	38					1,000	100
Scup							500	25
Shad	128	26			92	25		
Silversides or spearing							5,550	975
Smelt							3,500	450
Squeteagues							42,065	4,817
Striped bass					4,390	1,011	50,399	8,654
Sturgeon			2,080	373				
Suckers	8,134	959	400	48	1,240	119		
Whitebait							13,561	1,335
Total	41,484	4,385	21,012	2,953	11,190	1,845	570,422	58,213

Apparatus and species.	Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Purse seines:						
Bluefish					5,550	$1,100
Menhaden					178,629,705	1,112,666
Scup					1,006,400	51,896
Sea bass					17,800	2,190
Squeteagues					157,300	4,738
Other fish					3,000	90
Total					179,819,755	1,172,680
Haul seines:						
Alewives	1,800	$95	25	$3	177,280	2,714
Bluefish					12,515	1,980
Bullheads	452	71	700	115	7,997	1,257
Carp	20,880	3,209	22,195	1,937	262,856	43,656
Catfish					15,335	1,555
Cod					150	15
Eels	75	9	50	6	3,575	422
Flounders					34,525	2,535
King whiting					2,100	325
Lance					2,585	775
Mackerel					4,050	668
Menhaden					25,658	315
Minnows	9,900	147	300	30	21,063	366
Mummichog					31,095	792
Perch, white					43,626	4,652
Perch, yellow	235	30	1,650	167	4,439	491
Roach, or shiners					6,930	1,263
Scup					500	25
Shad	2,275	545			3,870	891
Silversides or spearing					5,550	975
Smelt					3,500	450
Spot					1,000	100
Squeteagues					53,515	6,255
Striped bass			1,735	471	58,124	10,536
Sturgeon					2,080	373
Suckers	4,261	592	8,850	967	37,799	4,808
Sunfish	77	8			77	8
Whitebait					13,561	1,335
Total	39,955	4,706	35,505	3,696	836,165	89,537

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY GILL NETS.

Species.	Albany.		Columbia.		Dutchess.		Greene.		Kings.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			300	$18	12,790	$1,160	18,000	$1,260		
Bluefish									700	$100
Carp			28,620	2,860	2,895	373				
Perch, yellow					600	48				
Shad	1,016	$217	2,500	648	35,324	7,953			2,757	1,000
Sturgeon			304	106	3,335	716	150	10		
Sturgeon caviar					99	299				
Suckers			1,950	347	60	6				
Total	1,016	217	33,674	3,979	55,103	10,555	18,150	1,270	3,457	1,100

Species.	Nassau.		Orange.		Putnam.		Rockland.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			2,759	$164			500	$45
Bluefish	18,880	$4,620						
Bonito	9,500	800						
Carp							100	15
Mackerel	30,105	3,700						
Perch, white							680	88
Perch, yellow							115	17
Shad			6,932	1,807	480	$120	5,843	1,600
Squeteagues	84,700	8,620						
Striped bass							760	153
Sturgeon							488	81
Total	143,185	17,740	9,691	1,971	480	120	8,486	1,999

Species.	Suffolk.		Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			27,178	$2,168	100	$5	61,627	$4,820
Bluefish	68,227	$13,637					87,807	18,357
Bonito							9,500	800
Bullheads					98	11	98	11
Carp			3,845	547	3,021	409	38,481	4,204
Flounders	10,400	1,024					10,400	1,024
King whiting	765	121					765	121
Mackerel	37,910	4,598					68,015	8,298
Menhaden	13,500	250					13,500	250
Perch, white	1,250	150			600	60	2,530	298
Perch, yellow					3,954	401	4,669	466
Scup	150	7					150	7
Sea bass	300	45					300	45
Shad			41,193	9,178	8,177	1,946	104,222	24,469
Smelt	2,700	735					2,700	735
Spot	1,250	112					1,250	112
Squeteagues	80,065	10,644					164,765	19,264
Striped bass	3,150	805			1,330	352	5,240	1,310
Sturgeon	12,967	4,080	3,744	964	5,850	1,212	26,838	7,189
Sturgeon caviar	16	52			345	805	460	1,156
Suckers					1,750	228	3,760	581
Total	232,650	36,260	75,960	12,877	25,225	5,429	607,077	93,517

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY POUND NETS, TRAP NETS, AND WEIRS.

Species.	Broome.		Delaware.		Nassau.		Orange.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore					6,000	$300		
Alewives					2,400	115		
Bluefish					10,000	1,975		
Bonito					32,000	4,300		
Butterfish					23,400	2,600		
Cod					2,500	200		
Eels	4,200	$690	4,300	$587			4,150	$485
Flounders					12,400	1,000		
Hickory shad					900	52		
King whiting					600	120		
Mackerel					30,000	4,000		
Pollock					1,200	60		
Scup					22,400	1,940		
Sea bass					900	175		
Shad					1,200	240		
Sharks					800	30		
Spot					600	45		
Squeteagues					250,000	36,000		
Sturgeon					1,200	410		
Tautog					200	18		
Tuna					12,000	1,000		
Whiting					32,400	400		
Squid					4,500	285		
Total	4,200	690	4,300	587	447,600	55,265	4,150	485

Species.	Suffolk.		Sullivan.		Tioga.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	23,354	$1,120					29,354	$1,420
Alewives	107,120	2,655					109,520	2,770
Bluefish	89,792	13,803					99,792	15,778
Bonito	213,627	25,180					245,627	29,480
Butterfish	606,676	61,509					630,076	64,109
Cero	75	16					75	16
Cod	37,020	1,703					39,520	1,903
Cunners	240	10					240	10
Eels	104,579	13,182	23,500	$2,945	1,700	$230	142,429	18,119
Flounders	877,911	66,998					890,311	67,998
Grayfish	7,487	174					7,487	174
Hake	18,916	392					18,916	392
Herring	6,575	206					6,575	206
Hickory shad	22,555	1,392					23,455	1,444
King whiting	66,982	13,023					67,582	13,143
Lance	5,625	50					5,625	50
Mackerel	160,435	25,320					190,435	29,320
Mackerel frigate	184	10					184	10
Menhaden	778,936	4,004					778,936	4,004
Mullet	1,250	85					1,250	85
Perch, white	3,535	388					3,535	388
Pilotfish	280	18					280	18
Pollock	22,450	930					23,650	990
Pompano	35	7					35	7
Round herring	1,700	185					1,700	185
Salmon, Atlantic	40	18					40	18
Scup	245,055	20,228					267,455	22,168
Sea bass	28,054	4,787					28,954	4,962
Sea robin	38,019	1,130					38,019	1,130
Shad	5,852	1,359					7,052	1,599
Sharks	9,859	254					10,659	284
Silversides, or spearing	33,750	900					33,750	900
Skates	51,850	349					51,850	349
Spanish mackerel	25	5					25	5
Spot	40,907	3,471					41,507	3,516
Squeteagues	1,273,396	159,190					1,523,396	195,190
Striped bass	29,726	6,478					29,726	6,478
Sturgeon	3,449	1,177					4,649	1,587
Sturgeon cavier	480	550					480	550
Swellfish	30,875	122					30,875	122
Tautog	45,197	3,399					45,397	3,417
Tomcod	13,500	419					13,500	419
Tuna	20,413	1,745					32,413	2,745
Whiting	906,717	11,807					939,117	12,207
Other fish	1,238	58					1,238	58
Squid	325,617	18,215					330,117	1,500
Crabs, hard	365	46					365	46
Crabs, king	750	11					750	11
Lobster	7,700	1,545					7,700	1,545
Turtles	800	19					800	19
Total	6,270,973	469,642	23,500	2,945	1,700	230	6,756,423	529,844

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY FYKE NETS.

Species.	Albany.		Columbia.		Dutchess.		Greene.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bullheads	3,550	$788	1,914	$479	2,676	$531	1,232	$230
Carp	5,625	933	15,100	1,296	4,926	581	1,020	123
Eels	210	50	765	165	200	37	86	16
Perch, yellow	1,495	161	2,089	306	1,993	244	1,075	130
Pickerel	50	15	10	3	10	2	.....	.....
Suckers	12,945	2,033	12,993	1,092	3,849	395	2,050	263
Sunfish	.....	.....	40	2	651	70	.....	.....
Total	23,875	3,980	32,911	3,343	14,305	1,860	5,463	762

Species.	Orange.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	.....	.....	.....	.....	200	$10	22,000	$330
Bullheads	1,453	$261	2,659	$454	.....	.....	.....	.....
Carp	1,483	230	2,631	343	.....	.....	.....	.....
Eels	456	104	33	9	.....	.....	14,670	2,200
Flounders	.....	.....	.....	.....	.....	.....	678,800	15,894
Perch, white	.....	.....	.....	.....	50	5	14,000	2,200
Perch, yellow	890	118	762	85	.....	.....	.....	.....
Pickerel	.....	.....	45	9	.....	.....	.....	.....
Shad	.....	.....	.....	.....	50	10	.....	.....
Suckers	15,817	2,428	4,737	585	30	3	.....	.....
Tautog	.....	.....	.....	.....	.....	.....	600	35
Toadfish	.....	.....	.....	.....	.....	.....	2,000	30
Tomcod	4,800	219	.....	.....	.....	.....	33,700	1,160
Terrapin	.....	.....	.....	.....	.....	.....	600	350
Total	24,899	3,360	10,867	1,485	330	28	766,370	22,199

Species.	Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	180	$18	300	$15	22,680	$373
Bullheads	3,076	622	1,693	230	18,253	3,595
Carp	2,971	333	3,170	392	36,926	4,231
Eels	64	9	533	92	17,017	2,682
Flounders	.....	.....	.....	.....	678,800	15,894
Perch, white	.....	.....	300	35	14,350	2,240
Perch, yellow	4,606	468	1,737	188	14,647	1,700
Pickerel	75	15	21	3	211	47
Shad	.....	.....	20	4	70	14
Striped bass	.....	.....	275	73	275	73
Suckers	7,404	798	7,713	791	67,538	8,388
Sunfish	518	59	392	32	1,601	163
Tautog	.....	.....	.....	.....	600	35
Toadfish	.....	.....	.....	.....	2,000	30
Tomcod	.....	.....	3,500	85	42,000	1,464
Terrapin	.....	.....	.....	.....	600	350
Total	18,894	2,322	19,654	1,940	917,568	41,279

BY DIP NETS, SCAP NETS, HARPOONS, AND MINOR APPARATUS.

Apparatus and species.	Albany.		Columbia.		Dutchess.		Greene.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Scap nets:								
Alewives	60	$12	150	$15	860	$96	425	$42
Bullheads	135	19	158	29	360	51	112	22
Carp	13,410	1,722	7,584	1,139	5,097	653	6,135	786
Eels	3,328	372	10	2	.....	.....	.....	.....
Perch, yellow	.....	.....	655	84	325	56	120	15
Shad	.....	.....	.....	.....	.....	.....	80	25
Suckers	2,718	312	5,380	815	4,001	429	575	73
Sunfish	.....	.....	75	9	100	5	.....	.....
Total	19,651	2,437	14,012	2,093	10,743	1,290	7,447	963
Minor apparatus: Carp	.....	.....	.....	.....	.....	.....	16,000	1,985

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY DIP NETS, SCAP NETS, HARPOONS, AND MINOR APPARATUS—Continued.

Apparatus and species.	Kings.		Nassau.		Orange.		Putnam.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dip nets: Crabs, soft			5,795	$1,825				
Scap nets:								
Alewives					50	$3		
Bullheads					50	3		
Carp					2,850	402	300	$60
Eels					100	10		
Perch, yellow					50	8	100	10
Suckers					1,021	105	550	110
Total					4,121	531	950	180
Harpoons: Swordfish	30,000	$6,000						
Minor apparatus:								
Shrimp	1,125	250						
Clams, hard, public			7,512	3,910				
Clams, hard, private			800	350				
Total	1,125	250	8,312	4,260				

Apparatus and species.	Queens.		Rensselaer.		Rockland.		Suffolk.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dip nets:								
Mummichog							400	$50
Crabs, hard							120	10
Crabs, soft							90	30
Clams, soft, public							35,100	4,875
Total							35,710	4,965
Scap nets:								
Bullheads			252	$58				
Carp			5,500	625	800	$80		
Perch, yellow			50	5				
Suckers			1,531	170	150	15		
Total			7,333	858	950	95		
Harpoons: Swordfish							14,865	3,125
Minor apparatus:								
Mummichog	6,000	$600						
Shrimp	4,700	1,100						
Crabs, fiddler							200	150
Clams, hard, public							584	240
Total	10,700	1,700					784	390

Apparatus and species.	Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dip nets:						
Mummichog					400	$50
Crabs, hard					120	10
Crabs, soft					5,885	1,855
Clams, soft, public					35,100	4,875
Total					41,505	6,790
Scap nets:						
Alewives	5,059	$430			6,604	598
Bullheads	200	54			1,267	236
Carp	16,463	2,598	2,300	$276	60,439	8,341
Eels	5	1			3,443	385
Perch, yellow	345	51			1,645	229
Pickerel	4	1			4	1
Shad	398	130			478	155
Suckers	6,591	799	390	52	22,907	2,880
Sunfish	60	10			235	24
Total	29,125	4,074	2,690	328	97,022	12,849
Harpoons: Swordfish					44,865	9,125
Minor apparatus:						
Alewives	82	8			82	8
Bullheads	111	19			111	19
Carp	6,780	1,235			22,780	3,220
Mummichog					6,000	600
Suckers	614	74			614	74
Shrimp					5,825	1,350
Crabs, fiddler					200	150
Clams, hard, public					8,096	4,150
Clams, hard, private					800	350
Total	7,587	1,336			44,508	9,921

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY OTTER TRAWLS, DRAG NETS, LOBSTER POTS, EEL POTS, AND SPEARS.

Apparatus and species.	Bronx.		Columbia.		Dutchess.		Kings.		Nassau.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Otter trawls:										
Cod							38,000	$700		
Flounders							428,200	21,160	178,000	$9,200
Haddock							7,000	100		
Scallops, sea							10,740	2,150	13,080	4,320
Total							483,940	24,110	191,080	13,620
Drag nets: Shrimp									6,000	2,000
Lobster pots:										
Sea bass									6,750	1,350
Lobster	1,000	$200					406,300	62,880	10,450	2,425
Total	1,000	200					406,300	62,880	17,200	3,775
Eel pots:										
Eels			180	$22	5,103	$517	13,335	1,600	3,875	550
Mummichog							4,800	600		
Total			180	22	5,103	517	18,135	2,200	3,875	550
Spears: Eels									61,650	7,655

Apparatus and species.	New York.		Orange.		Queens.		Richmond.		Rockland.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Otter trawls:										
Cod	5,000	$200								
Flounders	90,000	4,200					37,000	$3,000		
Total	95,000	4,400					37,000	3,000		
Lobster pots: Lobster							45,400	11,700		
Eel pots:										
Eels			1,250	$202	1,900	$375	1,000	175	8,355	$882
Mummichog					3,500	350				
Total			1,250	202	5,400	725	1,000	175	8,355	882
Spears: Eels					2,150	550				

Apparatus and species.	Suffolk.		Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Otter trawls:								
Cod							43,000	$900
Flounders	2,097,920	$155,262					2,831,120	192,922
Haddock							7,000	100
Sea bass	30	5					30	5
Sea robin	150	5					150	5
Scallops, bay	13,590	2,000					13,590	2,000
Scallops, sea	14,400	1,700					38,220	8,170
Lobster	7,985	1,615					7,985	1,615
Total	2,134,075	160,587					2,941,095	205,717
Drag nets: Shrimp	76,625	25,540					82,625	27,540
Lobster pots:								
Sea bass							6,750	1,350
Lobster	558,160	116,317			400	$80	1,021,710	193,602
Total	558,160	116,317			400	80	1,028,460	194,952
Eel pots:								
Eels	164,040	19,589	1,093	$125	19,145	2,207	219,276	26,244
Mummichog							8,300	950
Total	164,040	19,589	1,093	125	19,145	2,207	227,576	27,194
Spears: Eels	5,300	635					69,100	8,840

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY HAND LINES AND TRAWL LINES.

Species.	Dutchess.		Kings.		Nassau.		New York.		Orange.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bluefish			198,533	$31,125	11,020	$2,680	663,100	$104,923		
Bonito					560	50				
Bullheads	94	$19							100	$12
Cod			31,500	2,100	86,450	5,615				
Eels	1,211	169							1,696	274
Flounders			9,850	800	8,100	900				
Haddock					6,490	400				
Hake			3,150	250	4,375	205				
Pollock					1,650	100				
Sea bass			11,050	1,165						
Squeteagues			1,250	100	4,800	700				
Striped bass					850	170				
Tautog			1,400	200						
Tilefish			300,000	21,000			833,000	55,984		
Whiting					170	5				
Total	1,305	188	556,733	56,740	124,465	10,825	1,496,100	160,907	1,796	286

Species.	Queens.		Rensselaer.		Richmond.		Rockland.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bullheads							110	$11
Cod	31,000	$2,100			26,000	$1,400		
Eels			260	$52			750	125
Flounders	7,755	1,315						
Squeteagues	5,000	1,150						
Striped bass	60	20					250	75
Sturgeon							50	5
Tautog	500	100						
Tomcod	1,700	200						
Total	46,015	4,885	260	52	26,000	1,400	1,160	216

Species.	Suffolk.		Ulster.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bluefish	4,600	$783					877,253	$139,511
Bonito	200	20					760	70
Bullheads			70	$7			374	49
Carp			160	26			160	26
Cod	410,240	23,750					585,190	34,965
Cunners	100	5					100	5
Eels	1,450	80	1,310	253	2,035	$363	8,712	1,316
Flounders	300	24					26,005	3,039
Haddock	5,025	376					11,515	776
Hake	9,465	583					16,990	1,038
Mackerel	19,575	2,070					19,575	2,070
Perch, yellow					100	10	100	10
Pollock	59,000	1,235					60,650	1,335
Scup	22,870	2,157					22,870	2,157
Sea bass	83,550	11,695					94,600	12,860
Sea robin	250	5					250	5
Skates	23,700	800					23,700	800
Squeteagues	11,010	1,127					22,060	3,077
Striped bass							1,160	265
Sturgeon					300	45	350	50
Tautog	6,825	610					8,725	910
Tilefish							1,133,000	76,984
Tomcod							1,700	200
Whiting							170	5
Crabs, hard	432,907	16,117					432,907	16,117
Total	1,091,067	61,437	1,540	286	2,435	418	3,348,876	297,640

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY DREDGES, TONGS, RAKES, HOES, AND FORKS.

Apparatus and species.	Bronx.		Kings.		Nassau.		New York.		Queens.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dredges:										
Clams, hard, public					3,200	$1,000				
Clams, hard, private					3,000	1,500				
Oysters, market, public			5,250	$750	2,520	575				
Oysters, market, private					975,499	227,335	455,000	$87,500		
Oysters, seed, public			5,600	800						
Mussels					50,000	2,500				
Scallops, sea					29,016	9,510				
Total			10,850	1,550	1,063,235	242,420	455,000	87,500		
Tongs:										
Clams, hard, public					44,640	17,510	2,200	1,100		
Skimmers or surf clams			22,560	5,100						
Oysters, market, private					199,234	50,478				
Total			22,560	5,100	243,874	67,988	2,200	1,100		
Rakes, hoes, and forks:										
Clams, hard, public			3,400	1,275	4,800	1,825			396	$450
Clams, hard, private					1,600	100				
Clams, soft, public			3,000	600	74,300	12,950			6,500	875
Clams, soft, private					2,000	325				
Skimmers or surf clams			25,600	6,200						
Miscellaneous (for bait)	322	$515	12,902	8,125	180	290	90	150	405	550
Total	322	515	44,902	16,200	82,880	15,490	90	150	7,801	1,875

Apparatus and species.	Richmond.		Suffolk.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dredges:								
Crabs, hard			29,850	$934	14,000	$700	43,850	$1,634
Clams, hard, public					400	300	3,600	1,300
Clams, hard, private							3,000	1,500
Oyster, market, public	10,500	$1,600					18,270	2,925
Oysters, market, private	[1] 2,534,714	514,741	4,949,070	849,009			8,914,283	1,678,585
Oysters, seed, public	19,950	2,850					25,550	3,650
Oysters, seed, private			7,000	750			7,000	750
Mussels							50,000	2,500
Scallops, bay			1,138,668	190,276			1,138,668	190,276
Scallops, sea			15,996	7,052			45,012	16,562
Shells			1,760,000	1,480			1,760,000	1,480
Total	2,565,164	519,191	7,900,584	1,049,501	14,400	1,000	12,009,233	1,901,162
Tongs:								
Clams, hard, public	960	500	281,976	129,149			329,776	148,259
Clams, soft, public			2,700	375			2,700	375
Skimmers or surf clams							22,560	5,100
Oysters, market, public			171,528	25,495	7,000	1,900	178,528	27,395
Oysters, market, private			17,500	4,600			216,734	55,078
Oysters, seed, public			44,275	6,060			44,275	6,060
Total	960	500	517,979	165,679	7,000	1,900	794,573	242,267

[1] Includes 83,718 bushels, valued at $83,718, taken up by vessels owned and employed mainly in Connecticut.

Yield of the fisheries of New York in 1921, by counties, apparatus, and species—Continued.

BY DREDGES, TONGS, RAKES, HOES, AND FORKS—Continued.

Apparatus and species.	Richmond.		Suffolk.		Westchester.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Rakes, hoes, and forks:								
Clams, hard, public	8,280	$3,900	405,976	$53,369	.....	.....	423,352	$60,819
Clams, hard, private	.....	.....	.....	.....	.....	.....	1,600	100
Clams, soft, public	.....	.....	43,550	8,495	21,000	$4,500	148,350	27,420
Clams, soft, private	.....	.....	.....	.....	.....	.....	2,000	325
Skimmers or surf clams	.....	.....	.....	.....	.....	.....	25,600	6,200
Oysters, market, public	2,800	400	92,855	11,070	.....	.....	95,655	11,470
Scallops, bay	.....	.....	270	100	.....	.....	270	100
Miscellaneous (for bait)	.....	.....	.....	.....	.....	.....	13,899	9,630
Total	11,080	4,300	542,651	73,034	21,000	4,500	710,726	116,064

INDUSTRIES.

Wholesale trade.—In 1921 there were 132 wholesale establishments in New York City and 21 in localities outside of the city engaged in handling fishery products. The investment amounted to $3,929,404, and the cash or working capital to $749,200. There were 1,748 persons engaged, who received $2,910,864 in wages. There were 90 firms in the city handling fresh and frozen fishery products and 42 firms handling prepared products. The 21 firms in localities outside of the city handled fresh and frozen fish.

Smoked fish, etc.—In 1921 there were 22 establishments, 21 in New York City and 1 outside of the city, engaged in preparing smoked fish and various other products, as pickled herring, miscellaneous canned products, oil and scrap from menhaden and other fish, and crushed oyster shells for poultry grit. The value of these establishments was $637,735, and the cash capital amounted to $157,000. There were 302 persons engaged, who received $385,128 in wages. The products included 10,216,625 pounds of smoked fish, valued at $2,971,796, and miscellaneous products, valued at $71,937.

Menhaden industry.—The statistics of the menhaden industry given in the appended table for 1921 include 3 factories, 2 for New York and 1 for Delaware, valued at $2,397,000, with a cash capital amounting to $105,000. The number of persons engaged was 490, who received $182,603 in wages. The quantity of menhaden utilized in the factories was 171,973,400 pounds, valued at $662,910. The products prepared included 9,906 tons of dry scrap and fish meal, valued at $396,240; 23,000 tons of acidulated scrap, valued at $460,000; and 2,377,824 gallons of oil, valued at $688,897.

Statistics of the wholesale fishery trade and smoked fish and miscellaneous fishery products in New York City and vicinity, and of the menhaden industry for New York and Delaware are given in the following tables:

Investment, persons engaged, and wages paid in the wholesale fishery trade of New York City and vicinity in 1921.

Items.	Greater New York.		Outside of Greater New York.		Total.	
	Number.	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Establishments	132	$3,505,633	21	$424,271	153	$3,929,904
Cash capital	.....	683,400	.....	65,800	.....	749,200
Persons engaged	1,457	.....	291	.....	1,748	.....
Wages paid	.....	2,773,055	.....	137,809	.....	2,910,864

Smoked fish and other fishery products prepared in New York City in 1921.[1]

Items.	Number.	Value.	Items.	Pounds.	Value.
Establishments	22	$637,735	Smoked fish—Continued.		
Cash capital		157,000	Kippered herring	43,000	$5,300
Persons engaged	302		Mackerel	35,000	7,000
Wages paid		385,128	Salmon	3,462,125	1,169,640
			Shad	79,000	14,890
Smoked fish:	*Pounds.*	*Value.*	Spoonbill cat	70,000	58,700
Buffalofish	495,000	$153,700	Sturgeon	886,600	621,800
Butterfish	374,000	105,600	Other fish	93,000	25,440
Carp	322,800	96,436			
Ciscoes	2,419,000	476,490	Total	10,216,625	2,971,796
Eels	54,600	17,200			
Finnan haddie	1,432,000	147,000	Miscellaneous products		71,937
Herring	450,500	72,600			

[1] Includes 1 firm outside of New York City engaged in preparing miscellaneous fishery products.

Menhaden industry of New York and Delaware in 1921.

Items.	Number.	Value.	Items.	Number.	Value.
Factories	3	$2,397,000	Products prepared:		
Cash capital		105,000	Dry scrap and fish meal, tons	9,906	$396,240
Persons engaged	490		Acidulated scrap, do	23,000	460,000
Wages paid		182,603	Oil, gallons	2,377,824	688,897
Menhaden utilized, pounds	171,973,400	662,910	Total		1,545,137

FISHERIES OF NEW JERSEY.

The fisheries of New Jersey in 1921 gave employment to 5,771 persons, of whom 2,164 were on fishing vessels, 28 on transporting vessels, 2,982 in the shore or boat fisheries, and 597 on shore in the wholesale fishery trade, menhaden factories, and other fishery industries.

The investment in the fisheries and fishery industries amounted to $4,701,704, which included 370 fishing and transporting vessels, valued at $1,181,050, with a net tonnage of 4,590 tons, and outfits valued at $262,410; 2,686 boats, valued at $684,679; fishing apparatus valued at $672,703; shore and accessory property valued at $1,587,762; and cash capital amounting to $313,100.

The products of the fisheries amounted to 96,936,784 pounds, having a value to the fishermen of $5,983,406. The principal species in the order of their value were oysters, 22,997,555 pounds, or 3,285,365 bushels, valued at $2,759,930; squeteagues, "sea trout," or weakfish, 11,651,735 pounds, valued at $902,439; bluefish, 2,243,425 pounds, valued at $390,947; clams, 925,588 pounds, or 112,111 bushels, valued at $385,198; scup or porgy, 4,115,552 pounds, valued at $200,046; butterfish, 2,862,491 pounds, valued at $159,286; flounders, 1,985,340 pounds, valued at $140,586; croaker, 3,815,554 pounds, valued at $126,700; menhaden, 30,405,093 pounds, valued at $121,451; and mackerel, 584,386 pounds, valued at $100,556.

Compared with 1904, there was a decrease in the number of persons employed of 3,323, or 36.54 per cent, but an increase in the investment of $2,015,908, or 75.06 per cent, and in the products of 6,828,716 pounds, or 7.57 per cent, in quantity, and of $2,597,991, or 76.74 per cent, in value.

The following table gives the number of persons engaged, investment, and products of the fisheries of New Jersey, by counties, in 1921:

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties.

	Atlantic.		Bergen.		Burlington.		Camden.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	159							
On vessels transporting	2				1			
In shore fisheries	382		21		158		33	
Shoresmen	17							
Total	560		21		159		33	
INVESTMENT.								
Vessels fishing:								
Gasoline	18	$130,300						
Tonnage	283							
Outfit		24,415						
Vessels transporting:								
Gasoline	1	3,000			2	$2,500		
Tonnage	13				16			
Outfit		100				50		
Boats:								
Sail, row, etc	239	8,755	13	$1,000	90	2,470	15	$450
Power	193	73,400	4	200	88	32,150	16	4,200
Apparatus, vessel fisheries:								
Purse seines	10	10,700						
Gill nets	424	8,035						
Otter trawls	5	375						
Lines, hand, trawl, and set		430						
Apparatus, shore fisheries:								
Pound nets and weirs	2	1,500						
Haul seines	17	690			23	1,300	8	400
Purse seines	1	600						
Gill nets	565	11,360	8	2,910	21	1,015	9	850
Otter trawls	4	300						
Stop nets					20	2,545	5	800
Fyke nets	14	625			147	500	40	90
Bag nets	5	100			53	1,060		
Lines, hand, and trawl		1,073						
Eel pots			20	40				
Dredges	16	240			18	275		
Tongs, rakes, and hoes	382	1,971			70	440		
Other apparatus	6	19						
Shore and accessory property		35,750		3,575		1,550		600
Cash capital		11,000						
Total		324,738		7,725		45,855		7,390
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	650	$20						
Alewives	19,985	420			5,000	$100	2,000	$80
Bluefish	286,146	47,610						
Bonito	17,900	1,078						
Butterfish	3,348	118						
Carp					26,361	4,026	19,590	3,490
Catfish	6,600	652			8,576	616	5,675	341
Cod	318,000	14,860						
Croaker	351,650	12,959			3,000	180		
Eels, fresh	14,050	1,407	2,500	$375	1,651	185	785	93
Flounders	438,033	30,971			11,800	984		
Haddock	2,000	100						
Hake	1,700	85						
King whiting	2,472	430						
Mackerel	288,617	41,642						
Menhaden	3,480,000	16,000						
Perch, white	13,385	1,463			18,620	2,705		
Perch, yellow					60	12		
Pike or pickerel					500	100		
Scup or porgy	1,122,200	50,287						
Sea bass	53,500	4,558						
Shad	1,005	246	25,920	6,294	6,750	1,729	4,841	1,302
Spot	10,476	438						
Squeteagues or weakfish	583,447	40,953			10,000	800		
Striped bass	7,584	1,921			49,250	16,610	2,000	500
Suckers	2,300	115			27,689	2,537	100	12
Tautog	700	72						
Whiting	6,400	128						

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

	Atlantic.		Bergen.		Burlington.		Camden.	
PRODUCTS—continued.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Crabs, soft	440	$193						
Clams, hard, public	230,320	104,220			54,000	$24,300		
Clams, soft, public	11,000	1,000						
Mussels	790,000	5,970						
Oysters, market, public					14,000	2,200		
Oysters, market, private	530,075	104,607			154,000	22,800		
Oysters, seed, public	56,000	3,895			28,000	2,000		
Oysters, seed, private	5,600	269			112,000	8,000		
Scallops	540	90						
Turtles	1,200	84						
Terrapin	225	225						
Total	8,657,548	489,086	28,420	$6,669	531,257	89,884	34,991	$5,818

	Cape May.		Cumberland.		Essex.		Gloucester.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	358		1,236					
On vessels transporting	2		8				4	
In shore fisheries	508		229				63	
Shoresmen	66		157		121			
Total	934		1,630		121		67	
INVESTMENT.								
Vessels fishing:								
Gasoline	60	$163,750	80	$406,050				
Tonnage	577		1,137					
Outfit		47,950		118,245				
Sail	1	300	124	299,000				
Tonnage	10		1,782					
Outfit		500		55,705				
Vessels transporting:								
Gasoline	1	3,000	8	12,600			2	$12,000
Tonnage	24		72				51	
Outfit		200		675				500
Sail			3	450				
Tonnage			18					
Boats:								
Sail, row, etc.	122	5,380	116	3,205			29	799
Power	276	140,110	142	52,300			32	6,750
Apparatus, vessel fisheries:								
Purse seines	6	8,300						
Gill nets	467	7,160						
Pound nets	26	134,500						
Otter trawls	15	1,085	2	140				
Lines, hand, trawl, and set		741						
Dredges	6	130	408	9,700				
Apparatus, shore fisheries:								
Pound nets and weirs	78	4,380	77	1,540				
Haul seines	14	390	9	575				
Gill nets	1,220	33,020	406	15,242			29	1,460
Otter trawls	4	240						
Stop nets			13	1,210			14	2,000
Fyke nets	17	1,700	137	149			187	465
Lines, hand, and trawl		1,712		168				
Eel pots	210	335	275	275				
Dredges	2	30						
Tongs, rakes, and hoes	215	555	98	490				
Other apparatus			2	2			6	30
Shore and accessory property		283,950		207,759		$262,535		400
Cash capital		32,100		136,000		28,000		
Total		871,518		1,321,480		290,535		24,404
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	2,800	$84	600	$6				
Alewives	30,400	512	10,000	300				
Bluefish	793,876	128,644	120,400	24,080				
Bonito	219,747	14,649	59,600	2,980				
Butterfish	502,505	32,087						

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS—continued.	Cape May.		Cumberland.		Essex.		Gloucester.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Carp			35,600	$4,800			48,125	$8,282
Catfish	2,200	$176	11,650	656			8,593	464
Cod	100,900	7,964						
Croaker	894,365	31,167	940,600	29,296				
Drum, black	600	15						
Drum, red	500	10						
Eels, fresh	18,100	1,710	40,350	2,035			2,452	291
Flounders	745,995	52,147	43,170	3,158				
Haddock	3,300	198						
Hake	18,907	536						
Herring	62,200	1,244						
King whiting	8,690	873						
Mackerel	164,550	31,507						
Menhaden	2,607,035	12,880						
Mullet, fresh	12,000	820						
Mullet, salted	1,200	240						
Perch, white	1,500	54	1,000	100				
Perch, yellow	500	50					125	19
Pollock	3,000	60						
Scup or porgy	2,256,116	108,670	3,450	173				
Sea bass	1,240,889	77,034	16,000	810				
Sea robin	400	8						
Shad	2,978	745	26,695	7,773			6,609	1,613
Sharks	2,000	30						
Skates and rays	7,900	214						
Spanish mackerel	550	130						
Spot	48,865	3,189	400	20				
Squeteagues or weakfish	2,779,181	206,285	257,900	13,131				
Striped bass	818	205	2,400	380				
Sturgeon	940	216	30,356	4,557				
Sturgeon roe	80	240	1,566	4,736				
Suckers			700	78				
Tautog	4,650	172						
Tuna	6,800	132	1,500	18				
Whiting	45,000	645						
Other fish	464	17						
Crabs, hard	4,800	300	2,800	210				
Crabs, king	2,762,174	8,287	523,000	1,569				
Squid	22,000	1,100						
Clams, hard, public	90,192	48,851	800	300				
Mussels			1,000	100				
Oysters, market, public	42,000	6,000						
Oysters, market, private	40,607	7,912	9,912,280	1,869,702				
Oysters, seed, public	155,400	8,880	11,383,400	650,480				
Total	15,709,674	796,889	23,427,217	2,621,448			65,904	10,696

PERSONS ENGAGED.	Hudson.		Hunterdon.		Mercer.		Middlesex.	
	Number.	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	2						2	
In shore fisheries	3		14		59		35	
Shoresman	13							
Total	18		14		59		37	
INVESTMENT.								
Vessels fishing:								
Gasoline	1	$500					1	$1,500
Tonnage	6						8	
Outfit		275						500
Boats:								
Sail, row, etc			6	$160	22	$820	13	550
Power	2	500					7	3,250
Apparatus, vessel fisheries:								
Eel pots	50	125						
Dredges							2	50
Rakes							4	50
Apparatus, shore fisheries:								
Haul seines			5	410	12	1,075	8	3,350
Gill nets					5	150	2	400
Fyke nets	3	60						
Eel pots							210	420
Lobster pots	70	200					20	40
Tongs, rakes, and hoes							5	40
Shore and accessory property		8,075		150		2,500		590
Cash capital		2,500						
Total		12,235		720		4,545		10,740

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS.	Hudson.		Hunterdon.		Mercer.		Middlesex.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives					3,950	$75		
Bluefish							7,275	$1,695
Carp			1,205	$143	8,194	1,225		
Catfish					316	28		
Eels, fresh	10,000	$1,000					9,500	950
Menhaden							30,000	50
Shad			1,459	461	14,126	5,014	435	190
Smelt							450	335
Squeteagues or weakfish							15,600	1,115
Suckers			3,330	399	13,075	1,480		
Lobster	5,000	1,000					500	150
Clams, hard, public							1,800	900
Oysters, seed, public							14,000	1,500
Total	15,000	2,000	5,994	1,003	39,661	7,822	79,560	6,885

	Monmouth.		Ocean.		Salem.		Total.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	93		314				2,164	
On vessels transporting	9		2				28	
In shore fisheries	755		495		227		2,982	
Shoresmen	150		59		14		597	
Total	1,007		870		241		5,771	
INVESTMENT.								
Vessels fishing:								
Gasoline	19	$81,200	36	$46,800			215	$830,100
Tonnage	228		254				2,493	
Outfit		10,855		1,700				203,940
Sail	2	1,300					127	300,600
Tonnage	26						1,818	
Outfit		90						56,295
Vessels transporting:								
Gasoline	7	14,400	2	1,500	1	$500	24	49,500
Tonnage	56		11		9		252	
Outfit		550		100				2,175
Sail	1	400					4	850
Tonnage	9						27	
Boats:								
Sail, row, etc	200	5,625	203	5,750	67	1,795	1,135	36,759
Power	357	203,485	350	111,025	84	20,550	1,551	647,920
Apparatus, vessel fisheries:								
Purse seines	4	4,000					20	23,000
Gill nets	100	1,970					991	17,165
Pound nets			56	181,350			82	315,850
Otter trawls	1	30					23	1,630
Lines, hand, trawl, and set		125						1,296
Eel pots							50	125
Lobster pots	350	450					350	450
Dredges	96	565	8	160			520	10,605
Rakes	58	580					62	630
Apparatus, shore fisheries:								
Pound nets and weirs	60	127,800					217	135,220
Haul seines	2	325	42	3,715	44	1,320	184	13,550
Purse seines							1	600
Gill nets	422	12,664	845	8,632	125	13,039	3,657	100,742
Otter trawls							8	540
Stop nets					34	5,810	86	12,365
Fyke nets	25	1,170	425	4,046	290	725	1,285	9,530
Bag nets							58	1,160
Lines, hand, and and trawl		1,345		705		20		5,023
Eel pots	2,723	2,846	556	556	108	160	4,102	4,632
Lobster pots	10,215	10,654	40	50			10,345	10,944
Dredges	2	30	14	200			52	775
Tongs, rakes, and hoes	198	1,267	353	1,965			1,321	6,728
Other apparatus	40	41	2	1	10	50		143
Shore and accessory property		479,917		284,911		15,500		1,587,762
Cash capital		74,000		19,500		10,000		313,100
Total		1,037,684		672,666		69,469		4,701,704

Persons engaged, investment, and products of the fisheries of New Jersey in 1921, by counties—Continued.

PRODUCTS.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	65,392	$2,158	55,600	$1,699	600	$18	125,642	$3,985
Alewives	22,158	872	308,700	9,375	6,000	180	408,193	11,914
Bluefish	685,331	125,860	345,397	62,258	5,000	800	2,243,425	390,947
Bonito	192,929	11,613	1,008,077	60,476	5,000	250	1,503,253	91,046
Butterfish	754,226	38,193	1,602,412	88,888			2,862,491	159,286
Carp					190,480	31,218	329,555	53,184
Catfish			1,430	112	56,027	2,931	101,067	5,976
Cod	177,132	8,968	91,245	5,561			687,277	37,353
Croaker	317,604	10,249	1,228,335	40,349	80,000	2,500	3,815,554	126,700
Drum, black	27,934	558	39,125	792			67,659	1,365
Drum, red							500	10
Eels, fresh	129,735	13,562	31,656	3,164	13,975	1,678	274,754	26,450
Eels, smoked	4,680	1,497					4,680	1,497
Flounders	198,349	14,262	542,343	38,669	5,650	395	1,985,340	140,586
Haddock	1,000	40					6,300	338
Hake	632,942	19,904	167,469	5,038			821,018	25,563
Herring	36,825	1,167	73,707	2,053			172,732	4,464
Hickory shad	6,574	293	21,571	1,289			28,145	1,582
King whiting	5,340	819	7,567	1,204	50	8	24,119	3,334
Mackerel	116,019	23,787	15,200	3,620			584,386	100,556
Menhaden	24,218,727	91,717	69,331	804			30,405,093	121,451
Mullet, fresh	4,060	204	2,400	112			18,460	1,136
Mullet, salted							1,200	240
Perch, white	2,353	353	93,862	14,078	250	38	130,970	18,791
Perch, yellow			20,210	3,031	10,387	1,596	31,282	4,708
Pike or pickerel							500	100
Pollock	1,240	52	300	15			4,540	127
Scup or porgy	183,467	11,033	547,469	29,741	2,850	142	4,115,552	200,046
Sea bass	34,067	2,285	31,244	2,005	2,630	131	1,378,330	86,823
Sea robin	43,740	866	19,500	466			63,640	1,340
Shad	6,820	1,651	30,839	7,649	40,160	9,793	168,637	44,460
Sharks	22,559	450	35,900	752			60,459	1,232
Skates and rays	23,600	616	11,600	356			43,100	1,186
Smelt							450	335
Spanish mackerel	624	146	2,808	703			3,982	979
Spot	51,612	3,167	77,800	4,668	395	20	189,548	11,502
Squeteagues or weakfish	1,982,975	160,050	6,008,632	479,165	14,000	940	11,651,735	902,439
Striped bass	2,990	554	5,306	1,521			70,348	21,691
Sturgeon	1,964	287	1,140	342	11,425	1,718	45,825	7,120
Sturgeon caviar			74	194			74	194
Sturgeon roe	241	715			1,685	5,055	3,572	10,746
Suckers			492	39	2,978	479	50,664	5,139
Tautog	37,192	2,310	1,500	96			44,043	2,650
Tomcod	1,750	87	200	10			1,950	97
Tuna	44,164	1,764	34,900	1,565	370	14	87,734	3,493
Whiting	1,720,403	34,408	1,509,030	29,190			3,280,833	64,371
Other fish	275	14	50	3			789	34
Lobster	390,941	87,088	1,400	350			397,841	88,588
Shrimp	20,000	400					20,000	400
Crabs, hard	110,644	6,720	1,000	60			119,244	7,290
Crabs, soft	14,560	5,464	1,800	475			16,800	6,132
Crabs, king	28,000	560					3,313,174	10,416
Squid	104,302	4,398	307,600	14,510			433,902	20,008
Clams, hard, public	95,576	46,737	309,400	139,240			782,088	364,548
Clams, soft, public	128,000	19,100	4,500	450			143,500	20,650
Mussels							791,000	6,070
Oysters, market, public	10,500	1,550	2,800	440			69,300	10,190
Oysters, market, private	160,293	28,600	180,600	26,685			10,977,855	2,060,300
Oysters, seed, public			2,100	150			11,638,900	666,905
Oysters, seed, private	15,400	1,760	178,500	12,500			311,500	22,529
Scallops							540	90
Turtles	8,015	160	4,500	90			13,715	334
Terrapin							225	225
Winkles	7,800	159					7,800	159
Total	32,853,025	789,327	15,038,621	1,096,002	449,912	59,904	96,936,784	5,983,406

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore or boat fisheries of New Jersey are shown separately in the appended table. The catch taken by vessels amounted to 55,168,849 pounds, valued at $4,179,742, and by boats in the shore fisheries to 41,767,935 pounds, valued at $1,803,664.

Products of the vessel and shore fisheries of New Jersey, 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	58,650	$1,795	66,992	$2,190	125,642	$3,985
Alewives	10,000	100	398,193	11,814	408,193	11,914
Bluefish	1,060,748	172,194	1,182,677	218,753	2,243,425	390,947
Bonito	857,224	52,661	646,029	38,385	1,503,253	91,046
Butterfish	2,104,917	120,975	757,574	38,311	2,862,491	159,286
Carp			329,555	53,184	329,555	53,184
Catfish			101,067	5,976	101,067	5,976
Cod	119,845	5,116	567,432	382,237	687,277	37,353
Croaker	1,803,400	59,440	2,012,154	67,260	3,815,554	126,700
Drum, black	39,725	807	27,934	558	67,659	1,365
Drum, red	500	10			500	10
Eels, fresh	7,000	699	267,754	25,751	274,754	26,450
Eels, smoked			4,680	1,497	4,680	1,497
Flounders	1,305,668	91,658	679,672	48,928	1,985,340	140,586
Haddock	2,200	124	4,100	214	6,300	338
Hake	183,776	5,430	637,242	20,133	821,018	25,563
Herring	135,907	3,297	36,825	1,167	172,732	4,464
Hickory shad	21,571	1,289	6,574	293	28,145	1,582
King whiting	13,057	2,027	11,062	1,307	24,119	3,334
Mackerel	326,477	54,636	257,909	45,920	584,386	100,556
Menhaden	10,147,631	48,760	20,257,462	72,691	30,405,093	121,451
Mullet, fresh	400	32	18,060	1,104	18,460	1,136
Mullet, salted			1,200	240	1,200	240
Perch, white			130,970	18,791	130,970	18,791
Perch, yellow			31,282	4,708	31,282	4,708
Pike			500	100	500	100
Pollock	3,300	75	1,240	52	4,540	127
Scup or porgy	3,765,135	181,940	350,417	18,106	4,115,552	200,046
Sea bass	769,533	48,620	608,797	38,203	1,378,330	86,823
Sea robin	19,900	474	43,740	866	63,640	1,340
Shad	32,007	7,941	136,630	36,519	168,637	44,460
Sharks	37,500	774	22,959	458	60,459	1,232
Skates and rays	18,700	538	24,400	648	43,100	1,186
Smelt			450	335	450	335
Spanish mackerel	3,358	833	624	146	3,982	979
Spot	114,065	7,177	75,483	4,325	189,548	11,502
Squeteagues	8,475,963	655,850	3,175,772	246,589	11,651,735	902,439
Striped bass	18	5	70,330	21,686	70,348	21,691
Sturgeon	1,680	498	44,145	6,622	45,825	7,120
Sturgeon caviar	74	194			74	194
Sturgeon roe			3,572	10,746	3,572	10,746
Suckers			50,664	5,139	50,664	5,139
Tautog	3,350	256	40,693	2,394	44,043	2,650
Tomcod			1,950	97	1,950	97
Tuna	31,100	1,449	56,634	2,044	87,734	3,493
Whiting	1,554,030	29,835	1,726,803	34,536	3,280,833	64,371
Other fish	514	20	275	14	789	34
Lobster	30,000	6,000	367,841	82,588	397,841	88,588
Shrimp	20,000	400			20,000	400
Crabs, hard	94,999	5,700	24,245	1,590	119,244	7,290
Crabs, soft			16,800	6,132	16,800	6,132
Crabs, king			3,313,174	10,416	3,313,174	10,416
Squid	329,600	15,610	104,302	4,398	433,902	20,008
Clams, hard	46,000	23,600	736,088	340,948	782,088	364,548
Clams, soft			143,500	20,650	143,500	20,650
Mussels			791,000	6,070	791,000	6,070
Oysters, market, public	10,500	1,550	58,800	8,640	69,300	10,190
Oysters, market, private	10,178,987	1,915,214	798,868	145,092	10,977,855	[1] 2,060,306
Oysters, seed, public	11,361,000	649,800	277,900	17,105	11,638,900	666,905
Oysters, seed, private	56,000	4,000	255,500	18,529	311,500	22,529
Scallops	540	90			540	90
Turtles	4,500	90	9,215	244	13,715	334
Terrapin			225	225	225	225
Winkles	7,800	159			7,800	159
Total	55,168,849	4,179,742	41,767,935	1,803,664	96,936,784	5,983,406

[1] In addition 1,543,059 pounds (220,435 bushels), valued at $232,850, were taken by New Jersey vessels in Delaware waters and are shown under that State.

FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of New Jersey include purse seines and haul seines, the former with a catch of 14,022,400 pounds, valued at $282,750, consisting chiefly of menhaden, scup or porgy, and squeteague, and the latter with a

catch of 903,660 pounds of various species, valued at $77,239; gill nets, with 3,770,625 pounds, valued at $355,972; pound nets and weirs, with 46, 663,590 pounds, valued at $1,448,822; hand lines and trawl lines, with 4,523,537 pounds, valued at $401,510; dredges, with 22,348,286 pounds, valued at $2,676,244, consisting chiefly of oysters; and tongs, rakes, hoes, etc., with 2,468,881 pounds, valued at $481,038, consisting chiefly of oysters and clams. Other forms of apparatus that took considerable quantities of products were fyke nets, bag nets, stop nets, dip nets, cast nets, otter trawls, eel pots, lobster pots, and spears. The lobster catch, amounting to 379,841 pounds, valued at $88,588, was all taken in lobster pots. The products taken with each form of fishing apparatus in the vessel and shore fisheries combined are shown in the appended tables:

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species.

BY PURSE SEINES AND HAUL SEINES.

Apparatus and species.	Atlantic.		Burlington.		Camden.		Cape May.	
Purse seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	650	$20						
Bluefish	3,700	460					13,000	$2,190
Butterfish							9,000	532
Croaker	89,000	1,850					170,000	8,300
Flounders	2,100	135					5,400	368
Menhaden	3,480,000	16,000					2,280,000	9,500
Scup or porgy	1,115,000	49,855					1,230,000	69,000
Sea bass	25,600	2,100					57,000	3,330
Squeteagues	475,000	29,700					1,054,285	68,800
Tautog	200	12					200	12
Total	5,191,250	100,132					4,818,885	162,032
Haul seines:								
Alewives	17,000	360	5,000	$100			6,400	132
Bluefish	250	50					225	55
Carp			3,009	431	2,430	$401		
Catfish	600	52	7,170	531	4,825	290		
Croaker	37,500	1,520					20,100	1,034
Eel	2,800	282					2,000	200
Flounders	4,100	390					4,300	344
King whiting	550	61					3,000	30
Mullet, fresh							12,000	820
Mullet, salted							1,200	240
Perch, white	2,000	195	3,250	550			300	30
Perch, yellow			60	12				
Pike			500	100				
Shad	500	125	625	150	600	146	150	38
Spot	4,150	208					6,600	380
Squeteagues	24,200	2,220					40,300	3,580
Striped bass	3,000	750	38,000	13,200			100	25
Suckers	400	20	27,609	2,525	100	12		
Total	97,050	6,233	85,223	17,599	7,955	849	96,675	6,908

Apparatus and species.	Cumberland.		Hunterdon.		Mercer.		Middlesex.	
Haul seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	10,000	$300			3,950	$75		
Bluefish							6,800	$1,600
Carp	5,500	780	1,205	$143	8,194	1,225		
Catfish	5,600	296			316	28		
Croaker	9,000	270						
Flounders	170	8						
Menhaden							30,000	50
Perch, white	500	50						
Shad	2,640	744	1,459	461	12,546	4,473	435	190
Smelt							450	335
Spot	400	20						
Squeteagues	6,000	300					10,600	765
Striped bass	2,000	300						
Suckers	700	78	3,330	399	13,075	1,480		
Total	42,510	3,146	5,994	1,003	38,081	7,281	48,285	2,940

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con·

BY PURSE SEINES AND HAUL SEINES—Continued.

Apparatus and species.	Monmouth.		Ocean.		Salem.		Total.	
Purse seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore							650	$20
Bluefish							16,700	2,650
Butterfish							9,000	532
Croaker							259,000	10,150
Flounders							7,500	503
Menhaden	4,005,265	$20,026					9,765,265	45,526
Scup or porgy							2,345,000	118,855
Sea bass							82,600	5,430
Squeteagues	7,000	560					1,536,285	99,060
Tautog							400	24
Total	4,012,265	20,586					14,022,400	282,750
Haul seines:								
Alewives			290,000	$8,700			332,350	9,667
Bluefish	1,500	270					8,775	1,975
Butterfish	100	6					100	6
Carp					37,130	$6,255	57,468	9,235
Catfish			1,430	112	38,600	2,060	58,541	3,369
Croaker							66,600	2,824
Eel	25	3					4,825	485
Flounders	500	40	1,050	63			10,120	845
King whiting							3,550	91
Menhaden	15,000	150					45,000	200
Mullet, fresh	4,000	200	2,000	80			18,000	1,100
Mullet, salted							1,200	240
Perch, white			57,780	8,666	250	38	64,080	9,529
Perch, yellow			3,710	557	7,882	1,221	11,652	1,790
Pike							500	100
Shad							18,955	6,327
Smelt							450	335
Spot	6,000	480					17,150	1,088
Squeteagues	1,800	144	6,000	420			88,900	7,429
Striped bass			3,430	1,000			46,530	15,275
Suckers					1,750	315	46,964	4,829
Tomcod			200	10			200	10
Crabs, hard	150	90					150	90
Crabs, soft			1,600	400			1,600	400
Total	29,075	1,383	367,200	20,008	85,612	9,889	903,660	77,239

BY GILL NETS.

Species.	Atlantic.		Bergen.		Burlington.		Camden.		Cape May.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives							2,000	$80		
Bluefish	25,590	$5,118							73,360	$15,264
Bonito									9,000	540
Croaker	147,250	5,290			3,000	$180			190,000	5,700
Mackerel	288,617	41,642							161,850	30,853
Menhaden									9,000	900
Scup or porgy									1,000	54
Shad	450	110	25,920	$6,294	6,125	1,579	4,241	1,156	660	165
Spot	2,000	100								
Squeteagues	42,750	3,800			10,000	800			388,400	29,628
Sturgeon									200	30
Total	506,657	56,060	25,920	6,294	19,125	2,559	6,241	1,236	833,470	83,134

Species.	Cumberland.		Gloucester.		Mercer.		Middlesex.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Bluefish	69,000	$13,800					475	$95
Croaker	922,200	28,666						
Shad	24,055	7,029	6,609	$1,613	1,580	$541		
Squeteagues	216,000	11,000					5,000	350
Sturgeon	30,356	4,557						
Sturgeon roe	1,566	4,736						
Total	1,263,177	69,788	6,609	1,613	1,580	541	5,475	445

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY GILL NETS—Continued.

Species.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			16,200	$600	6,000	$180	24,200	$860
Bluefish	268,785	$51,393	21,300	4,398	1,000	160	459,510	90,228
Bonito	1,350	81					10,350	621
Butterfish	20,400	1,020					20,400	1,020
Croaker	162,700	5,472	48,600	2,316	75,000	2,250	1,548,750	49,874
Mackerel	103,403	21,233	3,600	720			557,470	94,448
Menhaden			5,000	50			14,000	950
Perch, white			31,282	4,692			31,282	4,692
Perch, yellow			3,300	495			3,300	495
Scup or porgy							1,000	54
Shad	3,384	789			40,160	9,793	113,184	29,069
Spot	2,600	176					4,600	276
Squeteagues	133,872	10,677	130,100	9,748	9,000	540	935,122	66,543
Striped bass			1,583	441			1,583	441
Sturgeon	167	16			11,425	1,718	42,148	6,321
Sturgeon, roe	83	258			1,685	5,055	3,334	10,049
Suckers			392	31			392	31
Total	696,744	91,115	261,357	23,491	144,270	19,696	3,770,625	355,972

BY POUND NETS AND WEIRS.

Species.	Atlantic.		Cape May.		Cumberland.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore			2,400	$76		
Alewives	2,985	$60	24,000	380		
Bluefish	206	52	30,035	5,158		
Bonito			42,210	3,736		
Butterfish	3,348	118	493,505	31,555		
Cero			200	14		
Cod			500	44		
Croaker	29,500	885	442,665	13,183		
Drum, black			600	15		
Drum, red			500	10		
Eels			900	90		
Flounders	5,283	423	87,345	6,699		
Hake			16,507	416		
Herring			62,200	1,244		
King whiting	1,622	324	5,690	843		
Mackerel			2,700	654		
Menhaden			318,035	2,480		
Perch, white	385	38	1,200	24		
Pollock			3,000	60		
Scup or porgy			844,916	31,986		
Sea bass			96,404	8,636		
Sea robin			400	8		
Shad	55	11	2,168	542		
Sharks			1,600	22		
Skates and rays			7,100	182		
Spanish mackerel			550	130		
Spot	4,326	130	42,265	2,809		
Squeteagues	4,169	334	1,230,396	99,155		
Striped bass	684	171	718	180		
Sturgeon			740	186		
Sturgeon roe			80	240		
Tautog			1,450	136		
Whiting	6,400	128	45,000	645		
Other fish			264	3		
Crabs, king			2,762,174	8,287	523,000	$1,569
Squid			22,000	1,100		
Total	58,963	2,674	6,592,417	220,928	523,000	1,569

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY POUND NETS AND WEIRS—Continued.

Species.	Monmouth.		Ocean.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore	65,392	$2,158	55,600	$1,699	123,392	$3,933
Alewives	20,658	812			47,643	1,252
Bluefish	156,391	27,918	296,697	53,610	483,329	86,738
Bonito	50,028	3,001	778,577	46,958	870,815	53,695
Butterfish	733,726	37,167	1,602,412	88,888	2,832,991	157,728
Cero					200	14
Cod	33,732	1,686	45,745	2,376	79,977	4,106
Croaker	151,904	4,657	1,179,435	38,015	1,803,504	56,740
Drum, black	27,934	558	39,125	792	67,659	1,365
Drum, red					500	10
Eels	450	46	100	9	1,450	145
Flounders	171,699	12,310	453,823	31,929	718,150	51,361
Hake	610,342	19,000	166,459	4,978	793,318	24,394
Herring	36,825	1,167	73,707	2,053	172,732	4,464
Hickory shad	6,574	293	21,571	1,289	28,145	1,582
King whiting	5,340	819	7,567	1,204	20,219	3,190
Mackerel	12,616	2,554	11,600	2,900	26,916	6,108
Menhaden	20,194,712	71,466	64,331	754	20,577,078	74,700
Mullet	60	4	400	32	460	36
Perch, white					1,585	62
Pollock	1,240	52	300	15	4,540	127
Scup or porgy	182,225	10,934	531,619	28,819	1,558,760	71,739
Sea bass	13,447	807	20,244	1,386	130,095	10,829
Sea robin	43,740	866	19,500	466	63,640	1,340
Shad	3,361	842	30,839	7,649	36,423	9,044
Sharks	22,559	450	35,900	752	60,059	1,224
Skates and rays	12,600	286	11,600	356	31,300	824
Spanish mackerel	624	146	2,808	703	3,982	979
Spot	42,112	2,439	77,800	4,668	166,503	10,046
Squeteagues	1,831,953	148,001	5,777,282	462,177	8,843,800	709,667
Striped bass	140	42			1,542	393
Sturgeon	1,797	271	1,140	342	3,677	799
Sturgeon caviar			74	194	74	194
Sturgeon roe	158	457			238	697
Tautog	25,465	1,595	1,500	96	28,415	1,827
Tuna	34,004	1,366	30,900	1,445	64,904	2,811
Whiting	1,720,403	34,408	1,509,030	29,190	3,280,833	64,371
Other fish	275	14	50	3	589	20
Crabs, hard	2,562	154			2,562	154
Crabs, king					3,285,174	9,856
Squid	104,302	4,398	307,600	14,510	433,902	20,008
Turtles	8,015	160	4,500	90	12,515	250
Total	26,329,365	393,304	13,159,845	830,347	46,663,590	1,448,822

BY FYKE NETS AND BAG NETS.

Apparatus and species.	Atlantic.		Burlington.		Camden.		Cape May.	
Fyke nets:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Carp			302	$46				
Catfish	6,000	$600	1,406	85	850	$51	2,200	$176
Eels	1,250	125	1,651	185	785	93	5,000	400
Flounders	3,000	300	4,000	360				
Perch, white	10,000	1,080	5,000	600				
Perch, yellow							500	50
Striped bass	3,400	850	300	90	2,000	500		
Suckers	1,900	95	80	12				
Total	25,550	3,050	12,739	1,378	3,635	644	7,700	626
Bag nets:								
Flounders			7,800	624				
Perch, white	1,000	150	10,370	1,555				
Striped bass	500	150	10,950	3,320				
Total	1,500	300	29,120	5,499				

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY FYKE NETS AND BAG NETS—Continued.

Apparatus and species.	Cumberland.		Gloucester.		Hudson.		Monmouth.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Fyke nets:								
Alewives							1,500	$60
Bluefish							75	15
Carp	4,000	$600	4,950	$891				
Catfish	5,600	320	8,593	464				
Eels	350	35	2,452	291	4,000	$400	6,000	720
Flounders							3,900	312
Menhaden							3,750	75
Perch, white	500	50					2,353	353
Perch, yellow			125	19				
Shad							75	20
Spot							900	72
Squeteagues							2,100	168
Striped bass							2,850	512
Tautog							75	6
Tomcod							1,750	87
Crabs, hard							600	36
King crabs							28,000	560
Total	10,450	1,005	16,120	1,665	4,000	400	53,928	2,996

Apparatus and species.	Ocean.		Salem.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Fyke nets:						
Alewives	2,500	$75			4,000	$135
Bluefish					75	15
Carp					9,252	1,537
Catfish			13,954	$698	38,603	2,394
Eels			5,975	718	27,463	2,967
Flounders	44,340	3,587			55,240	4,559
Menhaden					3,750	75
Perch, white	4,800	720			22,653	2,803
Perch, yellow	13,200	1,979	375	56	14,200	2,104
Shad					75	20
Spot					900	72
Squeteagues					2,100	168
Striped bass	293	80			8,843	2,032
Suckers	100	8			2,080	115
Tautog					75	6
Tomcod					1,750	87
Crabs, hard					600	36
King crabs					28,000	560
Total	65,233	6,449	20,304	1,472	219,659	19,685
Bag nets:						
Flounders					7,800	624
Perch, white					11,370	1,705
Striped bass					11,450	3,470
Total					30,620	5,799

BY STOP NETS, DIP NETS, CAST NETS, OTTER TRAWLS, EEL POTS, LOBSTER POTS, AND SPEARS.

Apparatus and species.	Atlantic.		Bergen.		Burlington.		Camden.		Cape May.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Stop nets: Carp					23,050	$3,549	17,160	$3,089		
Dip nets: Crabs, soft	440	$193								
Otter trawls:										
Flounders	415,400	28,978							583,800	$40,171
Scallops	540	90								
Total	415,940	29,068							583,800	40,171
Eel pots: Eels, fresh			2,500	$375					10,200	1,020
Spears: Eels	10,000	1,000								

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY STOP NETS, DIP NETS, CAST NETS, OTTER TRAWLS, EEL POTS, LOBSTER POTS, AND SPEARS—Continued.

Apparatus and species.	Cumberland.		Gloucester.		Hudson.		Middlesex.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Stop nets:								
Carp	26,100	$3,420	39,925	$6,806				
Catfish	450	40						
Striped bass	400	80						
Total	26,950	3,540	39,925	6,806				
Dip nets: Crabs, hard	2,800	210						
Cast nets: Carp			3,250	585				
Otter trawls: Flounders	18,400	1,720						
Eel pots: Eels, fresh	40,000	2,000			6,000	$600	9,500	$950
Lobster pots: Lobster					5,000	1,000	500	150

Apparatus and species.	Monmouth.		Ocean.		Salem.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value*	*Pounds.*	*Value.*
Stop nets:								
Carp					141,000	$22,740	247,235	$39,604
Catfish					2,153	107	2,603	147
Perch, yellow					1,935	290	1,935	290
Striped bass							400	80
Suckers					975	125	975	125
Total					146,063	23,262	253,148	40,246
Dip nets:								
Crabs, hard	8,333	$500	1,000	$60			12,133	770
Crabs, soft	14,560	5,464	200	75			15,200	5,732
Total	22,893	5,964	1,200	135			27,333	6,502
Cast nets:								
Carp					12,350	2,223	15,600	2,808
Catfish					1,320	66	1,320	66
Perch, yellow					195	29	195	29
Suckers					253	39	253	39
Total					14,118	2,357	17,368	2,942
Otter trawls:								
Flounders							1,017,600	70,869
Shrimp	20,000	400					20,000	400
Scallops							540	90
Total	20,000	400					1,038,140	71,359
Eel pots:								
Eels, fresh	112,010	11,668	31,556	3,155	8,000	960	219,766	20,728
Eels, smoked	4,680	1,497					4,680	1,497
Total	116,690	13,165	31,556	3,155	8,000	960	224,446	22,225
Lobster pots:								
Sea bass	2,000	120					2,000	120
Lobster	390,941	87,088	1,400	350			397,841	88,588
Crabs, hard	4,000	240					4,000	240
Total	396,941	87,448	1,400	350			403,841	88,948
Spears: Eels	11,250	1,125					21,250	2,125

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY HAND LINES AND TRAWL LINES.

Species.	Atlantic.		Cape May.		Cumberland.		Monmouth.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore			400	$8	600	$6		
Bluefish	256,400	$41,930	677,256	105,977	51,400	10,280	258,580	$16,264
Bonito	17,900	1,078	168,537	10,373	59,600	2,980	141,551	8,531
Cod	318,000	14,860	100,400	7,920			143,400	7,282
Croaker	48,400	3,414	71,600	2,950	9,400	360	3,000	120
Flounders	8,150	745	65,150	4,565	24,600	1,430	22,250	1,600
Haddock	2,000	100	3,300	198			1,000	40
Hake	1,700	85	2,400	120			22,600	904
King whiting	300	45						
Scup or porgy	7,200	432	180,200	7,630	3,450	173	1,242	99
Sea bass	27,900	2,458	1,087,485	65,068	16,000	810	18,620	1,358
Sharks			400	8				
Skates			800	32			11,000	330
Squeteagues	37,328	4,899	65,800	5,122	35,900	1,831	6,250	500
Tautog	500	60	3,000	24			11,653	709
Tuna			6,800	132	1,500	18	10,160	398
Crabs, hard			4,800	300				
Turtles	1,200	84						
Total	726,978	70,190	2,438,328	210,427	202,450	17,888	651,306	68,135

Species.	Ocean.		Salem.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Albacore			600	$18	1,600	$32
Bluefish	27,400	$4,250	4,000	640	1,275,036	209,341
Bonito	229,500	13,518	5,000	250	622,088	36,730
Cod	45,500	3,185			607,300	33,247
Croaker	300	18	5,000	250	137,700	7,112
Flounders	43,130	3,090	5,650	395	168,930	11,825
Haddock					6,300	338
Hake	1,000	60			27,700	1,169
King whiting			50	8	350	53
Scup or porgy	15,850	922	2,850	142	210,792	9,398
Sea bass	11,000	619	2,630	131	1,163,635	70,444
Sharks					400	8
Skates					11,800	362
Spot			395	20	395	20
Squeteagues	95,250	6,820	5,000	400	245,528	19,572
Tautog					15,153	793
Tuna	4,000	120	370	14	22,830	682
Crabs, hard					4,800	300
Turtles					1,200	84
Total	472,930	32,602	31,545	2,268	4,523,537	401,510

BY DREDGES, TONGS, RAKES, HOES, ETC.

Apparatus and species.	Atlantic.		Burlington.		Cape May.		Cumberland.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dredges:								
Oysters, market, private	308,000	$64,300	91,000	$13,400	39,207	$7,612	9,912,280	$1,869,702
Oysters, seed, public	14,000	1,000			155,400	8,880	11,200,000	640,000
Oysters, seed, private			70,000	5,000				
Total	322,000	65,300	161,000	18,400	194,607	16,492	21,112,280	2,509,702
Tongs, rakes, hoes, etc.:								
Clams, hard	230,320	104,220	54,000	24,300	90,192	48,851	800	300
Clams, soft	11,000	1,000						
Oysters, market, public			14,000	2,200	42,000	6,000		
Oysters, market, private	222,075	40,307	63,000	9,400	1,400	300		
Oysters, seed, public	42,000	2,895	28,000	2,000			183,400	10,480
Oysters, seed, private	5,600	269	42,000	3,000				
Mussels	790,000	5,970					1,000	100
Terrapin	225	225						
Total	1,301,220	154,886	201,000	40,900	133,592	55,151	185,200	10,880

Yield of the fisheries of New Jersey in 1921, by counties, apparatus, and species—Con.

BY DREDGES, TONGS, RAKES, HOES, ETC.—Continued.

Apparatus and species.	Middlesex.		Monmouth.		Ocean.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Dredges:								
Crabs, hard			94,999	$5,700			94,999	$5,700
Oysters, market, public			10,500	1,550			10,500	1,550
Oysters, market, private			147,000	26,100	130,900	$19,520	[1]10,628,387	2,000,634
Oysters, seed, public	7,000	$1,000					11,376,400	650,880
Oysters, seed, private			15,400	1,760	152,600	10,720	238,000	17,480
Total	7,000	1,000	267,899	35,110	283,500	30,240	22,348,286	2,676,244
Tongs, rakes, hoes, etc.:								
Clams, hard	1,800	900	95,576	46,737	309,400	139,240	782,088	364,548
Clams, soft			128,000	19,200	4,500	450	143,500	20,650
Oysters, market, public					2,800	440	58,800	8,640
Oysters, market, private			13,293	2,500	49,700	7,165	349,468	59,672
Oysters, seed, public	7,000	500			2,100	150	262,500	16,025
Oysters, seed, private					25,900	1,780	73,500	5,049
Mussels							791,000	6,070
Winkles			7,800	159			7,800	159
Terrapin							225	225
Total	8,800	1,400	244,669	68,596	394,400	149,225	2,468,881	481,038

[1] In addition 1,543,059 pounds (220,435 bushels), valued at $232,850, were taken by New Jersey vessels in Delaware waters and are shown under the latter State.

INDUSTRIES.

Wholesale trade.—In 1921 there were 61 wholesale establishments in New Jersey, valued at $722,220, engaged in handling fresh fish, oysters, clams, and other fishery products. This number included 2 firms manufacturing scrap from king crabs, 1 firm manufacturing poultry grit from oyster shells, and 1 firm engaged in canning sturgeon caviar. The number of persons engaged was 480, who received $273,774 in wages, and the cash capital amounted to $230,100.

Menhaden industry.—In 1921 there were 3 menhaden factories operated in New Jersey, valued at $409,196, with a cash capital amounting to $78,000. There were 89 persons engaged in the factories, who received $24,485 in wages. The number of menhaden utilized in the factories was 33,600,000, or 20,160,000 pounds, valued at $109,000, and the products prepared included 7,238 tons of acidulated scrap, valued at $141,803, and 459,600 gallons of oil, valued at $107,340.

Statistics of the wholesale fishery trade and menhaden industry are given in the following tables:

Investment, persons engaged, and wages paid in the wholesale fishery trade of New Jersey in 1921, by counties.

Items.	Atlantic.		Cape May.		Cumberland and Salem.	
	Number.	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Establishments	5	$20,900	7	$48,300	27	$200,233
Cash capital		11,000		14,100		146,000
Persons engaged	17		34		196	
Wages paid		5,600		3,200		123,610

Investment, persons engaged, and wages paid in the wholesale fishery trade of New Jersey, in 1921, by counties—Continued.

Items.	Essex and Hudson.		Monmouth.		Ocean.		Total.	
	Number.	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Establishments	6	$270,535	4	$169,072	12	$13,180	61	$722,220
Cash capital		30,500		19,000		9,500		230,100
Persons engaged	134		71		28		480	
Wages paid		87,287		49,427		4,650		273,774

The menhaden industry of New Jersey in 1921.

Items.	Number.	Value.	Items.	Number.	Value.
Factories	3	$409,196	Gasoline vessels fishing	7	$99,800
Cash capital		78,000	Tonnage	134	
Wages paid factory employees		24,485	Outfit		9,600
Persons in factories	89		Purse seines	7	6,800
Persons on vessels	106				
Menhaden caught by vessels	[1] 16,275,442	45,526	Products:		
Menhaden caught in shore fisheries	33,897,437	72,691	Acidulated scrap...tons	7,238	141,803
Menhaden utilized in factories	33,600,000	109,000	Oil.....gallons	459,600	107,340

[1] This includes 3,800,000 menhaden taken incidentally by fishing vessels.

FISHERIES OF PENNSYLVANIA.

The fisheries of Pennsylvania in 1921 gave employment to 591 persons, of whom 42 were on vessels fishing, 2 on vessels transporting fishery products, 105 in the shore or boat fisheries, and 442 on shore in the wholesale fishery trade and other fishery industries.

The investment in the fisheries and fishery industries amounted to $1,375,778, and included 4 fishing and transporting vessels, valued at $26,800, with a net tonnage of 103 tons, and outfits valued at $5,125; 45 boats, valued at $4,305; fishing apparatus, valued at $5,192; shore and accessory property, valued at $1,074,156; and cash capital amounting to $260,200.

The products of the fisheries amounted to 594,613 pounds, having a value to the fishermen of $44,621. The most important species taken were alewives, 20,085 pounds, valued at $405; carp, 9,712 pounds, valued at $1,511; scup, 142,000 pounds, valued at $7,100; sea bass, 135,000 pounds, valued at $12,500; squeteagues, "sea trout" or weakfish, 240,000 pounds, valued at $14,400; and suckers, 21,199 pounds, valued at $2,469.

Compared with 1904, there was a decrease in the number of persons engaged of 821, or 58.14 per cent, in the investment of $721,937, or 34.41 per cent, and in the products of 1,451,681 pounds, or 70.94 per cent, in quantity, and of $122,878, or 73.36 per cent, in value.

The following table gives the number of persons engaged, investment, and the quantity and value of the products of the fisheries of Pennsylvania in 1921:

Persons engaged, investment, and products of the fisheries of Pennsylvania in 1921, by counties.

Items.	Bucks.		Delaware.		Philadelphia.		Total.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing					42		42	
On vessels transporting			2				2	
In shore fisheries	85		20				105	
Shoresmen			12		430		442	
Total	85		34		472		591	
INVESTMENT.								
Vessels fishing:								
Gasoline					3	$26,000	3	$26,000
Tonnage					93		93	
Outfit						5,050		5,050
Vessels transporting:								
Sail			1	$800			1	800
Tonnage			10				10	
Outfit				75				75
Boats:								
Row	30	$990	7	215			37	1,205
Gasoline	1	1,000	7	2,100			8	3,100
Apparatus, vessel fisheries:								
Purse seine					1	1,000	1	1,000
Hand lines						250		250
Apparatus, shore fisheries:								
Haul seines	21	1,892	1	20			22	1,912
Gill nets	8	420	5	950			13	1,370
Stop nets	2	300	3	325			5	625
Fyke nets			25	35			25	35
Shore and accessory property		670		18,100		1,055,386		1,074,156
Cash capital				3,000		257,200		260,200
Total		5,272		25,620		1,344,886		1,375,778
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	20,085	$405					20,085	$405
Bluefish					600	$108	600	108
Butterfish					200	6	200	6
Carp	6,212	881	3,500	$630			9,712	1,511
Catfish			2,125	128			2,125	128
Croaker					2,400	48	2,400	48
Eels			220	22			220	22
Flounders					200	10	200	10
Pigfish					2,000	80	2,000	80
Scup					142,000	7,100	142,000	7,100
Sea bass					135,000	12,500	135,000	12,500
Shad	14,827	4,662	4,045	1,172			18,872	5,834
Squeteague or weakfish					240,000	14,400	240,000	14,400
Suckers	20,199	2,349	1,000	120			21,199	2,469
Total	61,323	8,297	10,890	2,072	522,400	34,252	594,613	44,621

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore fisheries of Pennsylvania are given in the appended table. The products taken by vessels amounted to 522,400 pounds, valued at $34,252, and by boats in the shore fisheries to 72,213 pounds, valued at $10,369.

Products of the vessel and shore fisheries of Pennsylvania, 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			20,085	$405	20,085	$405
Bluefish	600	$108			600	108
Butterfish	200	6			200	6
Carp			9,712	1,511	9,712	1,511
Catfish			2,125	128	2,125	128
Croaker	2,400	48			2,400	48
Eels			220	22	220	22
Flounders	200	10			200	10
Pigfish	2,000	80			2,000	80
Scup	142,000	7,100			142,000	7,100
Sea bass	135,000	12,500			135,000	12,500
Shad			18,872	5,834	18,872	5,834
Squeteagues or weakfish	240,000	14,400			240,000	14,400
Suckers			21,199	2,469	21,199	2,469
Total	522,400	34,252	72,213	10,369	594,613	44,621

FISHERIES BY APPARATUS.

The most important forms of fishing apparatus used in the fisheries of Pennsylvania in 1921 included purse seines, with a catch of 398,400 pounds, valued at $22,472, of which squeteague was the principal species taken; haul seines, with 58,770 pounds, valued at $7,503; and hand lines, with 124,000 pounds, valued at $11,780, consisting mostly of sea bass. The remainder of the catch was taken with gill nets, stop nets, and fyke nets. The catch taken with each form of fishing apparatus in the vessel and shore fisheries combined is given in the following table:

Yield of the fisheries of Pennsylvania in 1921, by counties, apparatus, and species.

Apparatus and species.	Bucks.		Delaware.		Philadelphia.		Total.	
Haul seines:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	20,085	$405					20,085	$405
Carp	4,677	642					4,677	642
Catfish			125	$8			125	8
Shad	12,684	3,979					12,684	3,979
Suckers	20,199	2,349	1,000	120			21,199	2,469
Total	57,645	7,375	1,125	128			58,770	7,503
Purse seines:								
Bluefish					600	$108	600	108
Butterfish					200	6	200	6
Croaker					2,400	48	2,400	48
Flounders					200	10	200	10
Scup					140,000	7,000	140,000	7,000
Sea bass					15,000	900	15,000	900
Squeteague or weakfish					240,000	14,400	240,000	14,400
Total					398,400	22,472	398,400	22,472
Gill nets: Shad	2,143	683	4,045	1,172			6,188	1,855
Stop nets: Carp	1,535	239	3,500	630			5,035	869
Fyke nets:								
Catfish			2,000	120			2,000	120
Eels			220	22			220	22
Total			2,220	142			2,220	142
Hand lines:								
Pigfish					2,000	80	2,000	80
Scup					2,000	100	2,000	100
Seabass					120,000	11,600	120,000	11,600
Total					124,000	11,780	124,000	11,780
Grand total	61,323	8,297	10,890	2,072	522,400	34,252	594,613	44,621

INDUSTRIES.

Prepared products.—In 1921 there were 15 establishments in Philadelphia, Pa., engaged in preparing smoked fish and other products, having a value of $566,800, with cash capital amounting to $87,300, and employing 118 persons, to whom $119,919 were paid in wages. The quantity of smoked fish prepared was 1,185,328 pounds, valued at $215,436. Other products prepared amounted to $84,480 in value. Statistics of these products, by species, are given in the table below.

Wholesale trade.—In the wholesale fresh-fish trade of Philadelphia and Chester, Pa., in 1921, there were 52 establishments engaged, valued at $503,486, with a cash capital of $167,900, and employing 324 persons, to whom $357,787 were paid in wages.

Smoked and salted fish and other fishery products prepared in Philadelphia in 1921.

Items.	Number.	Value.	Items.	Pounds.	Value.
Establishments	15	$566,800	Smoked fish—Continued.		
Cash capital		87,300	Herring (Maine)	22,000	$2,640
Persons engaged	118		Herring (Nova Scotia)	494,646	62,687
Wages paid		119,919	Shad	9,600	3,840
			Sturgeon	4,800	6,000
Smoked fish:	*Pounds.*	*Value.*			
Alewives	36,300	$6,240	Total	1,185,328	215,436
Butterfish	14,000	3,080			
Ciscoes	460,582	101,974	Salted fish: Lake trout	3,600	1,080
Ciscoes ("tullibee")	5,900	1,475	Miscellaneous products [1]		83,400
Haddock	137,500	27,500			

[1] Includes lime and poultry grit from oyster shells.

FISHERIES OF DELAWARE.

The number of persons engaged in the fisheries of Delaware in 1921 was 976, of whom 279 were on vessels fishing, 2 on transporting vessels, 540 on boats in the shore or boat fisheries, and 155 on shore in the wholesale fishery trade and other fishery industries.

The investment in the fisheries and fishery industries amounted to $585,616 and included 29 fishing and transporting vessels, valued at $230,482, with a net tonnage of 760 tons and outfits valued at $23,561; 416 boats, valued at $39,035; fishing apparatus valued at $27,938; shore and accessory property valued at $153,400; and cash capital amounting to $108,500.

The products of the fisheries amounted to 25,023,193 pounds, having a value to the fishermen of $652,448. The most important species in value were alewives, 351,590 pounds, valued at $6,431; carp, 87,820 pounds, valued at $13,166; croaker, 418,873 pounds, valued at $18,682; menhaden, 18,082,000 pounds, valued at $67,970; shad, 86,836 pounds, valued at $16,312; squeteagues, "sea trout," or weakfish, 886,550 pounds, valued at $53,317; and oysters, 4,315,731 pounds, or 616,533 bushels, valued at $450,873.

Compared with 1904, there was a decrease in the number of persons engaged of 923, or 48.6 per cent, and also in the investment of $84,379, or 12.59 per cent, but an increase in the products of 19,414,904 pounds, or 346.18 per cent, in quantity and of $392,858, or 151.33 per cent, in value. This large increase in the products was due to the fact that a considerable catch of menhaden was taken in 1921 and none in 1904.

The number of persons engaged, investment, and products of the fisheries of Delaware in 1921 are given in detail in the following table:

Persons engaged, investment, and products of the fisheries of Delaware in 1921.

Items.	Kent.		New Castle.		Sussex.		Total.	
PERSONS ENGAGED.	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
On vessels fishing	127	.....	.....	.....	152	.....	279	.....
On vessels transporting	.....	.....	.....	.....	2	.....	2	.....
In shore fisheries	177	.....	84	.....	279	.....	540	.....
Shoresmen	19	.....	6	.....	130	.....	155	.....
Total	323	.....	90	.....	563	.....	976	.....
INVESTMENT.								
Vessels fishing:								
Steam	.....	.....	.....	.....	4	$165,382	4	$165,382
Tonnage	.....	.....	.....	.....	492	.....	492	.....
Outfit	.....	.....	.....	.....	.....	7,591	.....	7,591
Gasoline	11	$36,400	.....	.....	1	2,500	12	38,900
Tonnage	127	.....	.....	.....	8	.....	135	.....
Outfit	.....	8,150	.....	.....	.....	900	.....	9,050
Sail	12	23,700	.....	.....	1	2,500	13	26,200
Tonnage	115	.....	.....	.....	18	.....	133	.....
Outfit	.....	6,500	.....	.....	.....	420	.....	6,920
Vessels transporting:								
Gasoline	.....	.....	.....	.....	1	600	1	600
Tonnage	.....	.....	.....	.....	7	.....	7	.....
Sail	.....	.....	1	$500	2	1,500	3	2,000
Tonnage	.....	.....	5	.....	16	.....	21	.....
Outfit	.....	.....	.....	.....	.....	100	.....	100
Boats:								
Row	74	1,895	32	805	197	5,070	303	7,770
Gasoline	27	6,750	44	12,500	42	12,015	113	31,265
Apparatus, vessel fisheries:								
Purse seines	.....	.....	.....	.....	4	6,000	4	6,000
Dredges	46	1,055	.....	.....	4	90	50	1,145
Apparatus, shore fisheries:								
Gill nets	16	530	52	4,540	88	1,860	156	6,930
Pound nets	.....	.....	5	1,000	.....	.....	5	1,000
Haul seines	32	4,355	12	640	49	4,005	93	9,000
Fyke nets	64	158	292	671	75	800	431	1,629
Hand lines	.....	.....	.....	.....	.....	25	.....	25
Pots	25	25	51	51	205	205	281	281
Minor nets	20	240	16	645	5	3	41	888
Tongs	72	360	.....	.....	136	680	208	1,040
Shore and accessory property	.....	6,000	.....	19,500	.....	127,900	.....	153,400
Cash capital	.....	2,500	.....	5,000	.....	101,000	.....	108,500
Total	.....	98,618	.....	45,852	.....	441,146	.....	585,616
PRODUCTS.	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	62,990	$2,059	.....	.....	288,600	$4,372	351,590	$6,431
Bluefish	.....	.....	.....	.....	1,325	265	1,325	265
Carp	19,386	2,901	60,589	$9,089	7,845	1,176	87,820	13,166
Catfish	6,377	470	26,754	1,942	2,160	162	35,291	2,574
Croaker	141,848	7,591	.....	.....	277,025	11,091	418,873	18,682
Drum black	.....	.....	.....	.....	1,150	22	1,150	22
Eels	2,200	219	10,612	1,059	3,200	320	16,012	1,598
Flounders	.....	.....	.....	.....	34,429	1,798	34,429	2,198
Gizzard shad	.....	.....	7,320	292	.....	.....	7,320	292
Menhaden	.....	.....	.....	.....	18,082,000	67,970	18,082,000	67,970
Mullet	153	10	.....	.....	360	15	513	25
Perch, white	2,324	324	352	35	4,247	563	6,923	922
Perch, yellow	.....	.....	288	24	2,470	249	2,758	273
Pike	163	14	.....	.....	109	11	272	25
Sea bass	.....	.....	.....	.....	250	12	250	12
Shad	1,234	307	10,123	2,853	75,479	13,152	86,836	16,312
Spot	.....	.....	.....	.....	14,600	928	14,600	928
Squeteagues or weakfish	492,625	29,556	300	24	393,625	23,737	886,550	53,317
Striped bass	973	244	.....	.....	3,942	1,182	4,915	1,426
Sturgeon	520	78	11,570	1,735	.....	.....	12,090	1,813
Sturgeon roe	165	453	1,707	4,686	.....	.....	1,872	5,139
Suckers	.....	.....	983	118	.....	.....	983	118
Tautog	.....	.....	.....	.....	1,500	75	1,500	75
Crabs, soft	.....	.....	.....	.....	4,600	1,150	4,600	1,150
King crabs	500,000	1,500	.....	.....	130,000	390	630,000	1,890
Lobster	.....	.....	.....	.....	10,400	2,600	10,400	2,600
Clams, hard	3,400	1,700	.....	.....	640	640	4,040	2,340
Oysters, market, public	324,919	31,750	.....	.....	545,300	42,390	870,219	74,140
Oysters, market, private	1,942,563	293,975	.....	.....	.....	.....	1,942,563	293,975
Oysters, seed, public	1,376,949	75,558	.....	.....	126,000	7,200	1,502,949	82,758
Terrapin	.....	.....	.....	.....	300	300	300	300
Turtles	2,250	112	.....	.....	.....	.....	2,250	112
Total	4,881,039	448,821	130,598	21,857	20,011,556	181,770	25,023,193	652,448

VESSEL AND SHORE FISHERIES.

The products of the vessel and shore fisheries of Delaware are given in the following table. The products taken by vessels amounted to 21,462,331 pounds, valued at $456,518, and by boats in the shore fisheries to 3,560,862 pounds, valued at $195,930.

Products of the vessel and shore fisheries of Delaware in 1921.

Species.	Vessel fisheries.		Shore fisheries.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives			351,590	$6,431	351,590	$6,431
Bluefish			1,325	265	1,325	265
Carp			87,820	13,166	87,820	13,166
Catfish			35,291	2,574	35,291	2,574
Croaker			418,873	18,682	418,873	18,682
Drum, black			1,150	22	1,150	22
Eels			16,012	1,598	16,012	1,598
Flounders			34,429	1,798	34,429	1,798
Gizzard shad			7,320	292	7,320	292
Menhaden	18,056,000	$67,710	26,000	260	18,082,000	67,970
Mullet			513	25	513	25
Perch, white			6,923	922	6,923	922
Perch, yellow			2,758	273	2,758	273
Pike			272	25	272	25
Sea bass			250	12	250	12
Shad			86,836	16,312	86,836	16,312
Spot			14,600	928	14,600	928
Squeteagues or weakfish			886,550	53,317	886,550	53,317
Striped bass			4,915	1,426	4,915	1,426
Sturgeon			12,090	1,813	12,090	1,813
Sturgeon roe			1,872	5,139	1,872	5,139
Suckers			983	118	983	118
Tautog			1,500	75	1,500	75
Crabs, soft			4,600	1,150	4,600	1,150
King crabs			630,000	1,890	630,000	1,890
Lobster			10,400	2,600	10,400	2,600
Clams, hard	3,400	1,700	640	640	4,040	2,340
Oysters, market, public	72,919	13,750	797,300	60,390	870,219	74,140
Oysters, market, private	[1] 1,942,563	293,975			[1] 1,942,563	293,975
Oysters, seed, public	1,387,449	79,383	115,500	3,375	1,502,949	82,758
Terrapin			300	300	300	300
Turtles			2,250	112	2,250	112
Total	21,462,331	456,518	3,560,862	195,930	25,023,193	652,448

[1] Includes 1,543,057 pounds (220,437 bushels) taken up by New Jersey owners.

FISHERIES BY APPARATUS.

The principal forms of fishing apparatus used in the fisheries of Delaware in 1921 included gill nets, with a catch of 275,840 pounds, valued at $30,406; purse seines, with 18,056,000 pounds, valued at $67,710, consisting entirely of menhaden; haul seines, with 1,578,466 pounds, valued at $81,882; and dredges, tongs, etc., with 4,949,771 pounds, valued at $455,103. The remainder of the catch was taken with pound nets, fyke nets, hand lines, pots, and minor nets. The catch taken with each form of fishing apparatus in the vessel and shore fisheries combined is given in the following table:

Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species.

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
Gill nets:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Alewives	11,230	$224			1,950	$39	13,180	$263
Carp			13,200	$1,980			13,200	1,980
Catfish	1,150	80	1,350	108			2,500	188
Croaker					76,550	3,062	76,550	3,062
Gizzard shad			7,320	292			7,320	292
Menhaden					26,000	260	26,000	260
Mullet	153	10					153	10
Perch, white	800	96					800	96
Pike	163	14					163	14
Shad	329	85	10,123	2,853	63,885	11,058	74,337	13,996
Spot					9,650	532	9,650	532
Squeteagues					36,275	2,236	36,275	2,236

Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species—Continued

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
	Pounds.	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
Gill nets—Continued.								
Striped bass					1,750	$525	1,750	$525
Sturgeon	520	$78	11,570	$1,735			12,090	1,813
Sturgeon roe	165	453	1,707	4,686			1,872	5,139
Total	14,510	1,040	45,270	11,654	216,060	17,712	275,840	30,406
Pound nets:								
Carp			1,760	264			1,760	264
Catfish			5,595	447			5,595	447
Eels			209	21			209	21
Perch, white			352	35			352	35
Perch, yellow			288	24			288	24
Squeteagues			300	24			300	24
Total			8,504	815			8,504	815
Haul seines:								
Alewives	51,760	1,835			276,650	4,133	328,410	5,968
Bluefish					1,325	265	1,325	265
Carp	7,131	1,063	14,929	2,240	5,995	899	28,055	4,202
Catfish	2,196	162	6,426	488	2,160	162	10,782	812
Croaker	141,848	7,591			189,375	7,585	331,223	15,176
Drum, black					1,150	22	1,150	22
Flounders					6,219	381	6,219	381
Mullet					360	15	360	15
Perch, white	1,524	228			3,017	416	4,541	644
Perch, yellow					220	24	220	24
Pike					109	11	109	11
Shad	905	222			11,594	2,094	12,499	2,316
Spot					4,950	396	4,950	396
Squeteagues	492,625	29,556			352,000	21,120	844,625	50,676
Striped bass	973	244			2,042	612	3,015	856
Suckers			983	118			983	118
Total	698,962	40,901	22,338	2,846	857,166	38,135	1,578,466	81,882
Purse seines: Menhaden					18,056,000	67,710	18,056,000	67,710
Fyke nets:								
Alewives					10,000	200	10,000	200
Carp	1,150	172	9,320	1,398	1,850	277	12,320	1,847
Catfish	1,908	147	12,420	822			14,328	969
Croaker					6,000	240	6,000	240
Eels	335	33	5,927	591			6,262	624
Flounders					27,960	1,402	27,960	1,402
Perch, white					1,230	147	1,230	147
Perch, yellow					2,250	225	2,250	225
Squeteagues					600	36	600	36
Striped bass					150	45	150	45
Turtles	2,250	112					2,250	112
Total	5,643	464	27,667	2,811	50,040	2,572	83,350	5,847
Hand lines:								
Croaker					5,100	204	5,100	204
Eels					200	20	200	20
Flounders					250	15	250	15
Sea bass					250	12	250	12
Squeteagues					4,750	345	4,750	345
Tautog					1,500	75	1,500	75
Terrapins					300	300	300	300
Total					12,350	971	12,350	971
Pots:								
Eels	1,865	186	4,476	447	3,000	300	9,341	933
Lobsters					10,400	2,600	10,400	2,600
Total	1,865	186	4,476	447	13,400	2,900	19,741	3,533
Minor nets:								
Carp	11,105	1,666	21,380	3,207			32,485	4,873
Catfish	1,123	81	963	77			2,086	158
Crabs, soft					4,600	1,150	4,600	1,150
Total	12,228	1,747	22,343	3,284	4,600	1,150	39,171	6,181

Yield of the fisheries of Delaware in 1921, by counties, apparatus, and species—Continued.

Apparatus and species.	Kent.		New Castle.		Sussex.		Total.	
Dredges, tongs, etc.:	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*	*Pounds.*	*Value.*
King crabs	500,000	$1,500	.....	.....	130,000	$390	630,000	$1,890
Clams, hard	3,400	1,700	.....	.....	640	640	4,040	2,340
Oysters, market, public	324,919	31,750	.....	.....	545,300	42,390	870,219	74,140
Oysters, market, private	[1] 1,942,563	293,975	.....	.....	.....	.....	1,942,563	293,975
Oysters, seed, public	1,376,949	75,558	.....	.....	126,000	7,200	1,502,949	82,758
Total	4,147,831	404,483	.....	.....	801,940	50,620	4,949,771	455,103
Grand total	4,881,039	448,821	130,598	$21,857	20,011,556	181,770	25,023,193	652,448

[1] Includes 1,543,057 pounds (220,437 bushels) taken up by New Jersey owners.

INDUSTRIES.

Wholesale trade.—In the wholesale fishery trade of Delaware in 1921, there were 9 establishments, valued at $38,950, with a cash capital of $33,500, employing 112 persons, to whom $19,480 were paid in wages. Of these firms, 7 handled oysters, 1 handled fresh fish, and 1 manufactured scrap from king crabs. Statistics of the investment, persons engaged, and wages paid in the wholesale fishery trade of Delaware are given by counties in the appended table.

Menhaden industry.—There was one establishment in Delaware engaged in the menhaden industry. The statistics for this plant have been included with the statistics of the menhaden industry for New York, page 88.

Wholesale fishery trade of Delaware in 1921, by counties.

Items.	Kent and New Castle.		Sussex.		Total.	
	Number.	*Value.*	*Number.*	*Value.*	*Number.*	*Value.*
Establishments	4	$22,150	5	$16,800	9	$38,950
Cash capital	.....	7,500	.....	26,000	.....	33,500
Persons engaged	25	.....	87	.....	112	.....
Wages paid	.....	4,280	.....	15,200	.....	19,480

DEPARTMENT OF COMMERCE.

HERBERT HOOVER, Secretary of Commerce.

BUREAU OF FISHERIES.

[HENRY O'MALLEY, Commissioner.]

Chief functions.—Propagation of useful food fishes including lobsters, oysters, and other shellfish, and their distribution to suitable waters.

Investigations relating to fish culture, fish diseases, conservation of fishery resources, and development of commercial fisheries.

Study of methods of fisheries and fishery industries and utilization of fishery products.

Collection of statistics of fisheries.

Administration of Alaska salmon fisheries, Pribilof Islands fur-seal herd, and law for protection of sponges off Florida coast.

BUREAU OF NAVIGATION.

[D. B. CARSON, Commissioner.]

Chief functions.—General superintendence of commercial marine and merchant seamen.

Supervision of registration, licensing, numbering, etc., of vessels under the United States flag and annual publication of list of such vessels.

Enforcement of navigation and steamboat inspection laws and laws governing radio communication, as well as duties connected with fees, refunds, taxes, fines, etc., originating under such laws.

COAST AND GEODETIC SURVEY.

[E. LESTER JONES, Director.]

Chief functions.—Survey of coasts of United States and Territories and publication of charts. Among other things, this includes base measure, triangulation, topography, and hydrography; deep-sea soundings, temperature, and current observations; magnetic observations and researches; gravity researches, etc.

Publications of results of this work in annual reports and special publications, including charts of coasts and harbors. Tide tables are published annually in advance, as well as other information of use to navigators.

BUREAU OF THE CENSUS.

[WILLIAM M. STEUART, Director.]

Chief functions.—Decennial census covering population, agriculture, manufactures, mines and quarries, and forest products.

Decennial report on wealth, public debt, and taxation.

Decennial statistics relating to inmates of institutions, including paupers, insane, prisoners, and juvenile delinquents.

Census of agriculture in each middecennial year, biennial census of manufacture, quinquennial census of electrical public utilities, statistics of marriage and divorce.

Annual financial statistics of State and municipal governments.

Annual statistics of births, deaths, causes of death, etc., in the registration area of the United States.

Quarterly statistics of leaf-tobacco stocks and of production, stocks, and consumption of fats and oils.

Monthly or semimonthly statistics of cotton ginning, cotton stocks and consumption, the production, stocks, and consumption of hides and leather, the production of shoes and of active textile machinery.

Compilation and publication, in Survey of Current Business, of monthly commercial and industrial statistics.

BUREAU OF STANDARDS.

[GEORGE K. BURGESS, Director.]

Chief functions.—Custody of standards adopted or recognized by the Government.

Construction of standards, when necessary. Testing and calibration of apparatus and comparison of standards used by scientific or other institutions with those in custody of bureau.

Determination of physical constants and properties of materials.

Testing of materials and establishment of standards and processes in cooperation with commercial firms or organizations.

Collection and dissemination of information showing approved methods in building, planning, and construction, including building materials and codes and such other matters as may encourage, improve, and cheapen construction and housing.

Studies on simplified commercial practices and establishment through cooperative business organizations.

BUREAU OF LIGHTHOUSES.

[GEORGE R. PUTNAM, Commissioner.]

Chief functions.—Establishment and maintenance of lighthouses, lightships, buoys, and other aids to navigation on sea and lake coasts and rivers of the United States, including Alaska, Hawaiian Islands, and Porto Rico.

Publication of Light Lists, Buoy Lists, and Notices to Mariners, including information regarding all aids to navigation maintained by Lighthouse Service.

STEAMBOAT INSPECTION SERVICE.

[GEORGE UHLER, Supervising Inspector General.]

Chief functions.—Inspection of vessels, licensing of officers of vessels, and administration of laws relating to such vessels and their officers. Certification of able seamen who form crews of merchant vessels.

Inspection of vessels, including hulls, life-saving equipment, and types of boilers; testing of all materials subject to tensile strain in marine boilers.

BUREAU OF FOREIGN AND DOMESTIC COMMERCE.

[JULIUS KLEIN, Director.]

Chief functions.—Compilation of timely information on world market conditions and openings for American products in foreign countries secured through commercial attachés and trade commissioners of Department of Commerce and foreign service of Department of State.

Distribution of such information to American business through weekly Commerce Reports, special bulletins, confidential circulars, and the news and trade press.

Maintenance of commodity, technical, and geographical divisions in Washington to afford special service to American export industries.

Compilation and distribution of names of possible buyers and agents for American products in all parts of the world and publication of weekly lists of specific sales opportunities abroad.

Maintenance of 33 district and cooperative offices in 33 cities in the United States to expedite delivery of market information to business men and to keep department advised as to more urgent requirements of American trades and industries.

Publication of official statistics on imports and exports of the United States.